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C. A. M. C.

CYPRUS

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ANNUAL

MEDICAL & SANITARY REPORT,

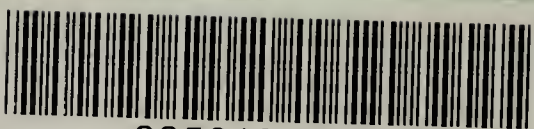
1931

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NICOSIA:

PRINTED AT THE CYPRUS GOVERNMENT PRINTING OFFICE.

1932



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1932

[July, 1932. M.P. 262/32.]

DEPARTMENT OF HEALTH,  
NICOSIA, CYPRUS,  
31st March, 1932.

*Sir,*

*I have the honour to submit for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary Conditions of Cyprus, for the year 1931, together with the returns, etc., appended thereto.*

*I have the honour to be,*

*Sir,*

*Your obedient Servant,*

G. C. STRATHAIRN,  
*Director of Health.*

NOTE
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Amby
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1931

*The Honourable  
The Colonial Secretary,  
Cyprus.*



# CONTENTS.

	PAGE.
<b>I.—ADMINISTRATION</b> .. .. .	5
(A.) Establishment .. .. .	5
(B.) Legal .. .. .	6
(C.) Financial .. .. .	7
(D.) Medical Stores .. .. .	8
<b>II.—PUBLIC HEALTH</b> .. .. .	9
(A.) General Remarks .. .. .	9
(B.) Diseases .. .. .	9
Diagrams showing percentage of—	
(A.) General Diseases .. .. .	10
(B.) Communicable Diseases .. .. .	10
(C.) Vital Statistics .. .. .	11
General Remarks .. .. .	11
General Population .. .. .	11
Invaliding, etc., Table for European Officials .. .. .	12
Invaliding, etc., Table of Cypriot Officials .. .. .	12
<b>III.—HYGIENE AND SANITATION</b> .. .. .	14
(A.) General Review of Work done and Progress made.. .. .	14
(I.) Administration .. .. .	14
(a) General .. .. .	14
(b) Personnel .. .. .	14
(c) Financial .. .. .	14
(II.) Communicable Diseases .. .. .	15
(a) Insect-borne Diseases .. .. .	15
Spleen Rates .. .. .	15
Return of Quinine Imported by Government .. .. .	17
Return of Anti-Malarial Works carried out.. .. .	17
(b) Communicable Diseases other than at (a) and (c) .. .. .	17
(c) Helminthic Diseases .. .. .	19
(III.) General Measures of Sanitation .. .. .	20
Sewage Disposal .. .. .	20
Water Supply .. .. .	20
(IV.) School Hygiene .. .. .	20
(V.) Industrial Hygiene .. .. .	20
(VI.) Housing and Town Planning .. .. .	20
(VII.) Food in relation to Health and Disease .. .. .	20
(B.) Measures taken to spread the knowledge of Hygiene and Sanitation .. .. .	20
<b>IV.—PORT HEALTH WORK</b> .. .. .	22
<b>V.—MATERNAL, CHILD WELFARE AND SOCIAL HYGIENE</b> .. .. .	22
<b>VI.—HOSPITALS AND DISPENSARIES</b> .. .. .	23
Statement of the amount of work performed yearly .. .. .	23
Statistics for Leper Farm .. .. .	23
Healthy Children of Lepers' Home .. .. .	23
Sanatorium and Tuberculosis Clinic .. .. .	23
Dental Clinics .. .. .	24
<b>VII.—CONTROL OF PROFESSIONAL PRACTICE</b> .. .. .	26
(a) Medical Council .. .. .	26
(b) Medical Practitioners .. .. .	26
(c) Dental Practitioners .. .. .	26
(d) Pharmacists and Druggists .. .. .	26
(e) Control of Dangerous Drugs.. .. .	26
Table of dangerous drugs for which licences to import were granted .. .. .	26
<b>VIII.—METEOROLOGY</b> .. .. .	27
<b>IX.—SCIENTIFIC</b> .. .. .	28
<b>X.—RECOMMENDATIONS FOR FUTURE WORK</b> .. .. .	28
<b>APPENDICES.</b>	
<b>A.—REPORT OF SURGICAL SPECIALIST</b> .. .. .	29
<b>B.—REPORT OF VENEREAL DISEASES OFFICER</b> .. .. .	39
<b>C.—REPORT OF BACTERIOLOGIST</b> .. .. .	42
<b>D.—REPORT OF ANALYST</b> .. .. .	54
<b>E.—REPORT OF SOCIAL WORKER</b> .. .. .	65
<b>F.—REPORT OF MEDICAL SUPERINTENDENT, MENTAL HOSPITAL</b> .. .. .	67
<b>G.—TABLE SHOWING STAFF</b> .. .. .	71
<b>H.—TABLE SHOWING FINANCIAL DETAILS</b> .. .. .	72
<b>I.—RETURN OF OUT-PATIENTS AND IN-PATIENTS TREATED</b> .. .. .	73



# ANNUAL MEDICAL AND SANITARY REPORT FOR THE YEAR, 1931.

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## I. ADMINISTRATION.

### (A.) ESTABLISHMENT (INCLUDING VACANCIES), ACTING APPOINTMENTS AND PROMOTIONS.

#### MEDICAL STAFF.

- 1 Director of Health.
- 1 Assistant Director of Health.
- 1 Surgical Specialist.
- 1 Specialist in Venereal Diseases.
- 1 Government Bacteriologist.
- 1 Government Analyst.
- 1 Health Officer.
- 1 Medical Superintendent, Mental Hospital.
- 3 Honorary Ophthalmic Surgeons.
- 3 Honorary Dentists.
- 3 Travelling Ophthalmic Surgeons.
- 3 District Medical Officers, 1st Grade.
- 4 Medical Officers, 1st Grade.
- 27 Medical Officers, 2nd Grade.
- 6 Medical Officers for Venereal Diseases Clinics.

#### ENGLISH NURSING STAFF, ETC.

- 4 Matrons.
- 6 Nursing Sisters.
- 1 Social Welfare Worker.

#### OTHER MEDICAL AND SANITARY STAFF.

- 1 Chief Sanitary Inspector.
- 7 District Sanitary Inspectors.
- 7 Sanitary Inspectors, 1st Grade.
- 21 Sanitary Inspectors, 2nd Grade.
- 34 Compounders.
- 1 Accountant and Statistician.
- 1 Medical Storekeeper.
- 1 Assistant Medical Storekeeper.
- 1 Storeman, Medical Stores.
- 1 Housekeeper, Nicosia Hospital.
- 8 Staff Nurses.
- 8 Male Orderlies.
- 1 Public Health Nurse.
- 12 Probationer Nurses.
- 1 Head Warder, Mental Hospital.
- 13 Mental Hospital Attendants.
- 3 Guards (Leper Farm).
- 1 Assistant to Analyst.
- 1 Bacteriological Assistant.
- 1 Attendant, Laboratory.
- 5 Government Midwives.

There are in addition to the above, Cooks, Servants, Kitchen-boys, House-maids, Ward-maids, Charwomen, Sanitary Labourers, Attendants, Messengers, etc.

#### CLERICAL STAFF.

- 2 Clerks, 2nd Grade.
- 1 Clerk, 3rd Grade.
- 2 Clerks, 4th Grade.
- 1 Student Clerk.



## PRINCIPAL ACTING APPOINTMENTS.

Dr. R. E. Hopton, Specialist in Venereal Diseases, acted as Assistant Director of Health from 1st January to 17th March, 1931.

Dr. E. Magnis, Medical Officer, 2nd Grade, acted as District Medical Officer from 1st to 7th January, from 8th to 27th May and from 25th September to 31st December, 1931.

Dr. H. Symeonides, Medical Officer, 1st Grade, acted as District Medical Officer from 28th May to 31st December, 1931.

Dr. A. Josephakis, Medical Officer, 2nd Grade, acted as District Medical Officer from 23rd April to 28th June, 1931.

Miss H. Hall, Nursing Sister, acted as Matron, Limassol Hospital, from 25th June to 24th September, 1931.

Mr. L. Haralambides, Assistant to Analyst, acted as Analyst from 24th July to 23rd November, 1931.

Mr. E. Menikefs, Clerk, 3rd Grade, General Clerical Staff, acted as House-keeper, Nicosia General Hospital, from 2nd November to 31st December, 1931.

## NEW APPOINTMENTS.

Dr. Ch. Tsiros appointed Honorary Oculist, Larnaca Hospital, from 1st January, 1931.

Dr. Ch. Tornarides appointed Medical Officer, 2nd Grade, from 1st March, 1931.

Dr. Ch. Macrides appointed Honorary Oculist, Limassol Hospital, from 15th March, 1931.

Miss Mary McGrail appointed Nursing Sister from 26th June, 1931.

Mr. I. G. Marcellos appointed Honorary Dentist, Nicosia Hospital, from 1st October, 1931.

Mr. V. Diamantides appointed Honorary Dentist, Larnaca Hospital, from 1st October, 1931.

Mr. Y. P. Michaelides appointed Honorary Dentist, Limassol Hospital, from 1st October, 1931.

Dr. Stelios G. Papadopoulos appointed Honorary Consulting Surgeon, Nicosia Hospital, from 9th October, 1931.

Dr. A. Gavrielides appointed Honorary Consulting Surgeon, Limassol Hospital, from 9th October, 1931.

Dr. Miltiades Coureas appointed Honorary Consulting Physician, Nicosia Hospital, from 9th October, 1931.

## PROMOTIONS.

*Nil.*

## RETIREMENTS AND RESIGNATIONS.

Dr. A. S. Millard, Assistant Director of Health, from 18th March, 1931.

Dr. E. J. Blackaby, District Medical Officer, transferred to Nyasaland as from 28th June, 1931.

Miss M. L. J. Pearce, Nursing Sister, from 12th November, 1931.

Dr. R. E. Hopton, Specialist in Venereal Diseases, from 8th December, 1931.

## DEATHS.

A Compounder, 4th Grade, died on 21st March, 1931.

## (B.) LIST OF LAWS, ORDERS, REGULATIONS, ETC., AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

## (B.) LEGAL.

Besides the laws mentioned hereunder, draft bills for a Quarantine Law, a Nursing Homes Law, a Midwives Law and suggestions for improving the Dental and Medical Registration Laws have been submitted.

Regulations under the Mental Patients Law and for the Quarantine Law have been drafted.

The Municipal Corporations Law regulations and regulations for Nicosia under the Hotel and Public Buildings Law have been reviewed.

A list of laws, regulations, orders, etc., affecting Public Health promulgated during 1931, will be found hereunder.



*Laws.*

- 9 of 1931.—Cyprus Criminal Code (Amendment) Law.  
14 of 1931.—Mental Patients Law.

*Regulations, Orders, etc.*

No. of notice  
in Gazette. Subject.

## 736. Quality of Milk.

New Burial Grounds were ordered for :—

No. of notice  
in Gazette. Subject.

- |   |                          |
|---|--------------------------|
| 523. Ayios Pavlos.  | 622. Lemba.              |
| 764. Kantou.  | 840. Nicosia (Armenian). |
| 343. Kelokedhara.   | 390. Pentalia.           |
| 578. Kouklia.   | 282. Phasoula.           |
| 670. Lagoudhera.  | 419. Souskiou.           |
| 390. Lapathos.  | 578. Voukolida.          |
| 964. Lapithos.  | 691. Yenagra.            |
| 143. Hotels and Public Buildings Law applied to Nicosia.  |                          |
| 1152. Nicosia bye-laws under the Hotel and Public Buildings Law.  |                          |
| 157. Appointment of Inspectors under Dangerous Drugs Law.   |                          |
| 119. Dihydromorphinone added to Dangerous Drugs Law.  |                          |
| 108. Appointment of Inspectors under Food and Drugs Law and amends<br>schedule of poisons under Pharmacy Law. |                          |

Bye-laws were made under the Municipal Corporations Law for :—

- |                         |                         |
|-------------------------|-------------------------|
| 1105. Akanthou.         | 749. Lefkara.           |
| 821. Athiænou.          | 910, 557. Limassol.     |
| 799 & 923. Famagusta.   | 871. Morphou.           |
| 109. Karavas.           | 423, 475, 685. Nicosia. |
| 244, 282, 982. Kyrenia. | 841, 897. Paphos.       |
| 983. Lapithos.          | 1114. Polis.            |

The Public Health (Villages) Law was applied to the following villages :—

699. Khirokitia.  
747. Leonarisso.  
76. Asproyia.  
145. Knodara.  
475. Phasoula.  
520. The Troödos Public Health Board Regulations.

## (c.) FINANCIAL.

The total revenue of the Health and Sanitary Department as shown below, amounted to £3,216 11s. 6cp.

The expenditure of the Health Department amounted to £54,870 6s. 4cp. as compared with the total expenditure of the Island to £743,076 3s. This equals 7.4%.

<i>Revenue.</i>						£	s.	cp.
1. Sale of Medicines	..	..	..	..	..	882	2	5
2. Hospital Receipts	..	..	..	..	..	982	12	0
3. Government Analyst's and Government Bacteriologist's Fees	..	..	..	..	..	86	4	4
4. Chemist's Fees	..	..	..	..	..	19	0	0
5. Registration of Diplomas	..	..	..	..	..	150	0	0
6. Quarantine Dues and Health Certificates	..	..	..	..	..	1,096	12	6
Total						£3,216	11	6

<i>Expenditure.</i>						£	s.	cp.
1. Personal Emoluments	..	..	..	..	..	25,115	15	4
2. Other Charges	..	..	..	..	..	29,754	11	0
Total						£54,870	6	4

## COST ACCOUNTING.

There are few more interesting details to the medical administrator than those comparing the costs of his various activities, when they are comparable. A system was devised at the start of the year and a clerk placed in charge of this branch. The following tables give the cost of various items in Institutional expenditure and in Venereal Clinics per day-case. There are still some obvious errors to be corrected but in the main the costs are comparable.

## COST PER DAY CASE OF VARIOUS ITEMS AT DIFFERENT INSTITUTIONS.

<i>Institution</i>	<i>Food</i>		<i>Drugs</i>		<i>Lighting</i>		<i>Total cost</i>		<i>No. of day cases</i>
	<i>s.</i>	<i>cp.</i>	<i>s.</i>	<i>cp.</i>	<i>s.</i>	<i>cp.</i>	<i>s.</i>	<i>cp.</i>	
Nicosia Hospital ..	1	4.55	1	2.65	0	1.25	6	6.40	21,491
Limassol Hospital..	0	7.23	0	6.78	0	1.00	4	7.00	13,855
Leper Hospital ..	2	4.00	2	2.70	0	0.25	10	2.93	1,105
Leper Farm ..	1	2.00	—	—	—	—	1	5.13	32,667
Sanatorium ..	1	7.28	0	2.58	0	0.18	3	8.30	10,418
Mental Hospital ..	0	3.94	0	0.38	0	0.25	0	8.25	61,210
Healthy Children of Lepers' Home ..	0	6.33	0	0.38	0	0.18	1	6.30	2,781

*Note 1.*—The total cost includes salaries of Medical Officers, Nurses, Compounders, Housekeeper, Menial Staff, Food, Special Expenditure and Miscellaneous.

2. The large cost of the Leper Hospital is due to the small number of day cases with which to divide up the cost of £570 10s. 1cp.

*State-aided Hospitals.*

<i>Institution</i>	<i>Salaries</i>		<i>Food</i>		<i>Lighting and Washing</i>		<i>Total cost</i>		<i>No. of day cases</i>
	<i>cp.</i>		<i>cp.</i>		<i>cp.</i>		<i>cp.</i>		
Famagusta ..	8.91	..	5.49	..	1.35	..	20.29	..	7,449
Larnaca ..	5.16	..	3.89	..	—	..	11.67	..	9,466
Paphos ..	5.20	..	8.90	..	—	..	14.70	..	5,344
Kyrenia ..	9.33	..	10.50	..	3.56	..	28.96	..	2,772

<i>Venereal Disease Clinic</i>	<i>Drugs</i>		<i>Lighting</i>		<i>Total cost</i>		<i>No. of day cases</i>
	<i>cp.</i>		<i>cp.</i>		<i>cp.</i>		
Nicosia ..	1.70	..	0.70	..	4.30	..	74,110
Larnaca ..	1.00	..	0.30	..	2.55	..	58,500
Limassol ..	1.65	..	0.80	..	4.18	..	37,046
Famagusta ..	2.00	..	0.10	..	4.13	..	41,340
Paphos ..	1.25	..	—	..	5.00	..	26,537

## (D.) MEDICAL STORES.

*Working of Headquarters Medical Stores during the year 1931.*

	£
Value of Stock on 1st January, 1931..	5,691
Bought during 1931 ..	4,969
	£10,660
Value of stock on 31st December, 1931 ..	4,502
Value of stock issued equals ..	£6,158



## II. PUBLIC HEALTH.

### (A.) GENERAL REMARKS.

The year 1931 resembles in many ways the previous year and the number of malaria cases treated is the highest on record 17,774. This is undoubtedly due to the heavy rains in the Winter 1930-31 and to unusual rains in the early Summer which twice washed out the work done in the rivers.

Practically no rain fell from the early Summer to the end of the year and it is, I think, safe to predict that malaria cases will be greatly diminished in number in 1932.

It will be seen under Hospitals and Dispensaries that the activities of the department, as far as curative medicine is concerned, are increasing yearly, but this, I think, does not point to an increase in sickness among the population except in the case of malaria. The number of persons seen by officers of the department include 92,036 out-patients, 4,772 in-patients, 48,076 children examined for spleen enlargement, 3,568 new cases at the Venereal Diseases Clinics, 252 cases at the Mental Hospital ; which totals up to 138,704.

The cost of these activities was £7,554 2s. 2cp. less than in 1930.

Three dental clinics were started towards the end of the year at Nicosia, Limassol and Larnaca. An extra travelling oculist was appointed for the Paphos and Limassol Districts. One Honorary oculist was appointed for Larnaca. A Pulmonary Tuberculosis Clinic was opened in Nicosia. On the other hand, vaccinations against smallpox have diminished owing to imperfections in the system adopted at the beginning of the year. It is expected that these will be remedied this year to a certain extent.

### (B.) DISEASES.

Communicable diseases are dealt with under Section III.

*Cancer*.—88 out-patients and 126 in-patients are recorded as compared with 61 and 105 of the previous year. In order to get better statistical records, cancer has been made a notifiable disease. See also the Surgical Specialist's Report.

*Rheumatism*.—The cases of acute rheumatism have increased from 652 out-patients in 1930 to 1,139 in 1931 and from 55 to 66 for in-patients. On the other hand the number of cases of chronic rheumatism has decreased.

*Diabetes*.—This disease is reported to be common in this Island. The figures in this Report are too small to enable an opinion to be based on them.

*Affections of the Nervous System*.—The figures for the Mental hospital are not included in the tables at the end of this Report. See the Report of the Medical Superintendent (Appendix F.).

*Paralysis Agitans* is more frequently seen in Cyprus than in any other Colony I have been to.

*Eye Diseases*.—Over 15,000 cases have been seen. This is slightly smaller than last year.

*Lobar Pneumonia*.—112 fever cases have been seen.

*Ascaris*.—522 out-patients are recorded as against 209.

*Wounds*.—By cutting or stabbing instruments are still far too high in numbers. 1,351 as against 1,121 for the previous year. As is to be expected, 67% are males.

(a)—General Systemic and Preventable Diseases

Preventable Diseases 25.4 per cent.

General and Other Diseases 24.4 per cent.

Digestive System 17.2 per cent.

Eye 15.7 per cent.

Respiratory System 9.8 per cent.

Nervous System 4.7 per cent.

Skin Diseases 2.3 per cent.

Organs of Locomotion 0.5 per cent.

(b)—Infectious Diseases

Gonorrhoea 9.8 per cent.

Other Diseases 7.3 per cent.

Influenza 3.8 per cent.

Syphilis 3.1 per cent.

Pneumonia 2.4 per cent.

Tuberculosis 1.4 per cent.

Malaria 72.2 per cent.



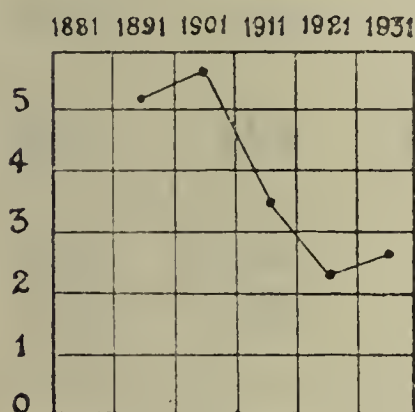
## (c.) VITAL STATISTICS.

The year 1931, was a census year and there are certain interesting details that arise from a perusal of the figures of the censuses that have been held in this Colony.

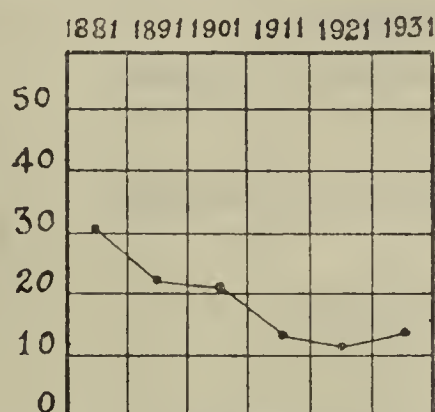
1. This is the first census that the number of females has been larger than that of males.

2. The rate per 10,000 of the population for Lepers, Lunatics and Blind as recorded at the various census shows an increasing diminution in numbers (except for Lepers and Lunatics at the last census). See the graph which follow.

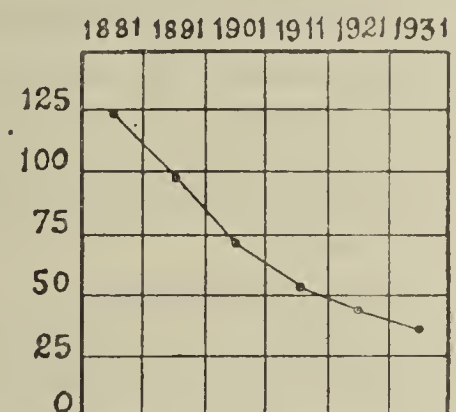
LEPERS



LUNATICS



BLIND



With the improved attention paid to the treatment of lepers, trachoma and venereal disease, it is to be expected that the figures for Leprosy and the Blind will continue to decrease. But the same cannot be expected of the figures for Lunacy.

A proposal for establishing a Central Registry Office, which in accord with modern practice should be a Branch of the Department of Health, was submitted to Government, but financial difficulties led to its postponement.

The actual cost of the proposal would be small. We should require :—

1. A fire-proof building and shelves.
2. Registers.
3. One Reliable Clerk.

The clerical work could be arranged for in the Health Department's Office in the meantime, but it is essential to train a reliable clerk for this important office as soon as finances admit. One cannot afford to have any mistakes in this work. In the meantime, the Registers in the Commissioners' Offices should be kept on until the Central Registry is in good going order.

The subjoined tables give the Vital Statistics figures for 1931.

## VITAL STATISTICS FOR 1931.

District.	Estimated Population at 30/6/31	Birth Rate per 1,000	Death Rate per 1,000	Infantile Mortality Figure
Nicosia .. .. .	110,294	28.8	15.5	154.1
Larnaca .. .. .	42,335	26.8	16.1	177.0
Limassol .. .. .	57,903	27.7	16.5	111.9
Famagusta .. .. .	71,607	33.6	18.3	198.6
Paphos .. .. .	43,794	33.6	19.7	200.0
Kyrenia .. .. .	22,678	31.5	17.9	166.2
<b>Total .. .. .</b>	<b>348,611</b>	<b>30.1</b>	<b>17.0</b>	<b>167.6</b>

*For Six Principal Towns.*

Nicosia .. .. .	23,766	21.7	14.9	114.3
Larnaca .. .. .	11,909	21.0	14.6	147.4
Limassol .. .. .	15,385	18.0	13.1	89.9
Famagusta .. .. .	10,031	18.8	11.3	137.5
Paphos .. .. .	4,524	20.7	15.4	95.7
Kyrenia .. .. .	2,141	25.2	16.8	166.6
<b>Total .. .. .</b>	<b>67,756</b>	<b>20.3</b>	<b>14.0</b>	<b>119.3</b>

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATE OF  
EUROPEAN OFFICIALS.

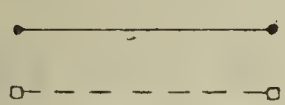
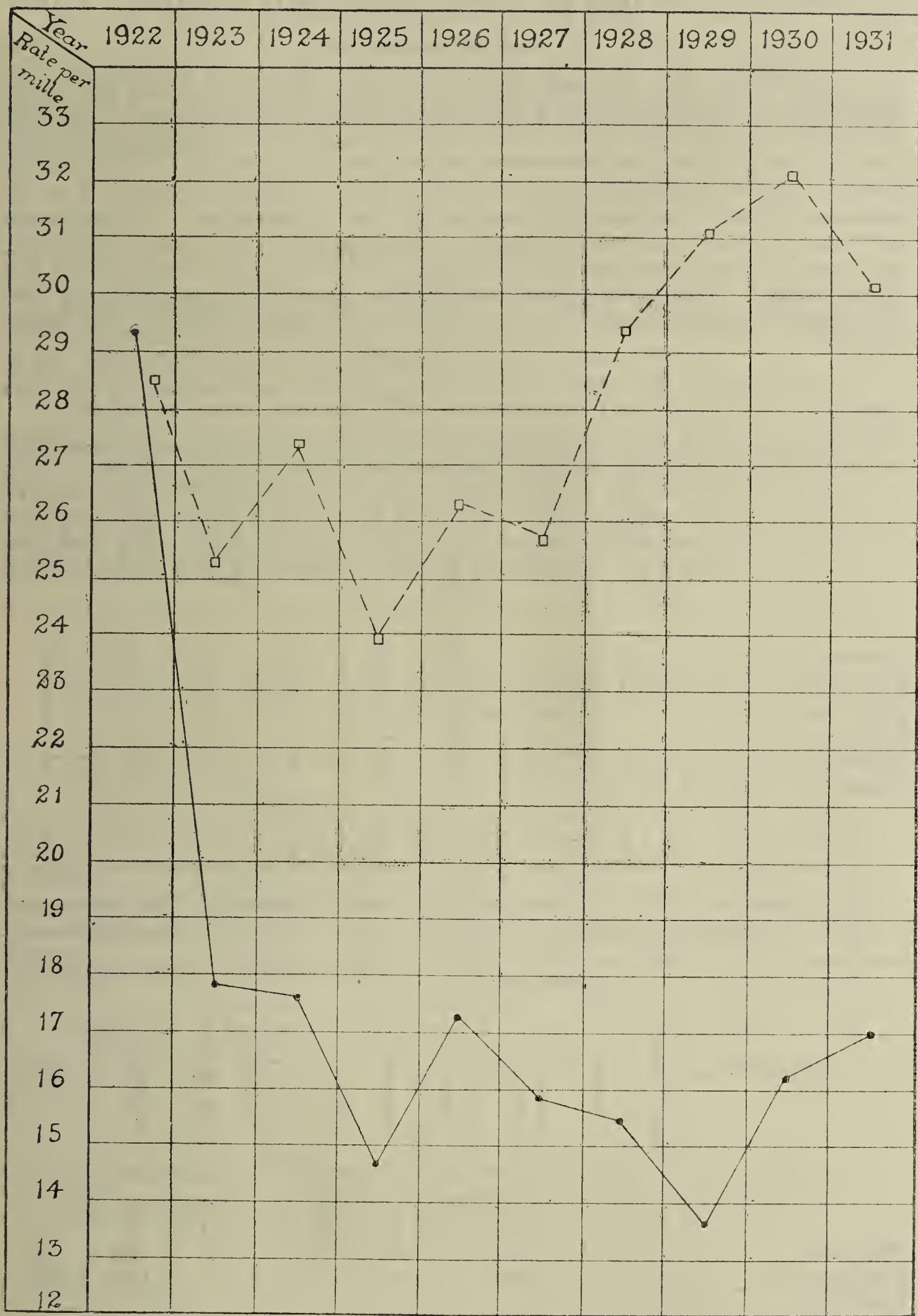
	1929.	1930.	1931.
	—	—	—
Total number of officials resident .. ..	95	106	97
Average number resident .. .. .	87	95	87
Total number on sick list .. .. .	38	42	39
Total number of days on sick list .. ..	371	253	343
Average daily number on sick list .. ..	1.0	0.7	0.9
Percentage of sick to average number resident .. .. .	0.40	0.44	0.45
Average number of days on sick list for each patient .. .. .	9.7	6.0	8.7
Average sick time to each resident ..	3.9	3.3	3.5
Total number invalided .. .. .	—	—	—
Percentage of invalidings to total residents	—	—	—
Total deaths .. .. .	—	—	—
Percentage of deaths to total resident ..	—	—	—
Percentage of deaths to total average number resident .. .. .	—	—	—
Number of cases of sickness contracted away from residence .. .. .	—	—	—

TABLE SHOWING THE SICK, INVALIDING, AND DEATH RATE OF  
CYPRIOT OFFICIALS.

	1929.	1930.	1931.
	—	—	—
Total number of officials resident .. ..	3,068	3,088	2,858
Average number resident .. .. .	3,054	3,073	2,846
Average number resident .. .. .	1,976	2,259	2,628
Total number of days on sick list .. ..	18,218	9,271	11,152
Average daily number on sick list .. ..	49.3	25.4	30.5
Percentage of sick to average number resident .. .. .	0.64	0.73	0.92
Average number of days on sick list for each patient .. .. .	9.7	4.1	4.2
Average sick time to each resident ..	5.1	3.0	3.8
Total number invalided .. .. .	28	13	22
Percentage of invalidings to total resident ..	0.9	0.4	0.7
Total deaths .. .. .	8	6	11
Percentage of deaths to total resident ..	0.2	0.2	0.3
Percentage of deaths to total average number resident .. .. .	0.2	0.2	0.3
Number of cases of sickness contracted away from residence .. .. .	—	—	—



GRAPH SHOWING CORRECTED BIRTH RATES AND DEATH RATES  
FOR THE LAST TEN YEARS.



Death Rate per thousand.  
Birth Rate per thousand.

### III. HYGIENE AND SANITATION.

#### (A.) GENERAL REVIEW OF WORK DONE AND PROGRESS MADE.

##### I. ADMINISTRATION.

(a) *General*.—An increased interest in Public Health is being shown by the Mayors of the towns with Municipal Councils, and villagers are beginning to realize the value of anti-malarial work so that some have undertaken to pay a large share of putting in permanent anti-malarial works where the Department could not spare enough to carry out the work. This public spirit is to be commended and it is hoped will spread by force of example. Arrangements are being made for Municipal Councils to undertake the prevention of breeding of domestic mosquitoes and leave the anti-malarial work in the hands of the Department. The anti-malarial work in the towns is very small. By this arrangement more money will be available for villages where it is badly needed.

(b) *Personnel*.—The table subjoined gives the staff employed on this work.

	Port Health Officers	Chief Sanitary Inspectors	District Sanitary Inspectors	Sanitary Inspectors, 1st Grade	Sanitary Inspectors, 2nd Grade	Quarantine Sanitary Inspectors, 2nd Grade	Government Midwives	Sanitary Labourers
Nicosia .. ..	—	—	1	3	4	—	1	1
Larnaca .. ..	1	—	1	1	2	2	1	1
Limassol .. ..	1	—	1	1	3	2	1	1
Famagusta .. ..	1	—	1	1	2	2	1	1
Paphos .. ..	—	—	2	—	3	—	1	1
Kyrenia .. ..	—	—	1	1	1	—	1	1
Colony .. ..	—	1	—	—	—	—	—	—
Total .. ..	3	1	7	7	15	6	6	6

(c) *Financial*.—The following amounts were expended in the prevention of disease and other sanitary matters during the year by the bodies mentioned.

Municipalities	ADMINISTRATION					Cleansing	Infectious Diseases Prevention	Child Welfare	Conservancy	Total
	Health Officers	Dentists	Sanitary Inspectors	Public Health Nurses	Clerks, Messengers, etc.					
	£	£	£	£	£	£	£	£	£	£
Athiænou .. ..	—	—	—	—	—	—	—	—	12	12
Famagusta .. ..	48	—	69	—	16	—	4	—	1,196	1,333
Karavas .. ..	—	—	—	—	—	—	—	—	—	—
Kyrenia .. ..	—	—	—	—	—	—	—	—	194	194
Kythræa .. ..	—	—	—	—	—	7	—	—	—	7
Lapithos .. ..	—	—	—	—	—	2	—	—	—	2
Larnaca .. ..	72	36	—	—	—	23	201	37	781	1,150
Lefka .. ..	—	—	—	—	—	—	4	—	—	4
Lefkara .. ..	—	—	—	—	—	—	11	—	70	81
Limassol .. ..	72	—	48	—	—	180	16	72	2,352	2,740
Nicosia .. ..	132	—	—	—	—	—	—	85	3,000	3,217
Paphos .. ..	—	—	—	—	—	—	16	—	187	203
Polis .. ..	—	—	—	—	—	—	2	—	58	60



## II. COMMUNICABLE DISEASES.

Stricter notification has been called for in 1931. A series of 25 post cards in book form with counterfoils attached, and with a list of the notifiable diseases on one cover and the legal penalty for not notifying on the other, has been issued to every registered practitioner in Cyprus. I am not, however, satisfied that we are yet getting information of all the cases that should be notified.

*(a) Insect-borne Diseases.*

*Malaria.*—The year was the worst on record for over twenty years. 17,774 cases are on record which forms 19.2% of the out-patients or 18.3% of the combined total of out-patients and in-patients.

The heavy rains noted in 1930 continued for the first half of 1931 and unusual rains swept away twice the anti-malarial work done in the rivers. From June to December there was scarcely any rain and very little up to the date of writing this Report. It may, therefore, be safely predicted that the numbers of cases will be small for 1932. Seven cases of Blackwater are reported. No reliability can be placed on the differential diagnosis of the Medical Officers as practically no blood examinations are made.

ABSTRACT OF SPLEEN RATE RETURNS FOR OCTOBER, NOVEMBER  
AND DECEMBER, 1931.

District	Total Examined	1	3	6	9	Spleen Rate	Average
Nicosia .. ..	15,413	13,897	1,154	222	140	10.0	1.4
Larnaca .. ..	6,226	5,380	619	148	79	13.5	1.5
Limassol .. ..	7,943	7,183	496	217	47	9.5	1.4
Famagusta ..	9,558	8,368	972	195	23	12.4	1.4
Paphos .. ..	5,519	4,325	649	377	168	21.6	2.0
Kyrenia .. ..	3,417	2,885	528	4	—	14.5	1.4
Total .. ..	48,076	42,038	4,418	1,163	457	12.5	1.5

TABLE SHOWING THE NUMBER OF CENTRES EXAMINED IN EACH DISTRICT,  
THE NUMBER WITH NORMAL SPLEENS AND THOSE HAVING FROM  
1—100% SPLEEN RATE IN 1931.

District	Normal Spleens	1-5 %	6-10 %	11-20 %	21-30 %	31-40 %	41-50 %	51-60 %	61-70 %	71-80 %	81-90 %	91-100 %	Total number of centres
Nicosia	15	38	23	26	16	13	6	6	9	4	4	—	160
Larnaca	1	7	10	17	9	5	3	3	1	—	1	1	58
Limassol	13	11	16	26	21	11	6	—	—	—	—	—	104
Famagusta	1	19	14	27	13	8	6	—	2	3	2	1	96
Paphos	7	5	8	27	19	12	19	7	11	3	6	—	124
Kyrenia	1	3	4	13	11	6	2	1	—	1	—	—	42
Total	38	83	75	136	89	55	42	17	23	11	13	2	584

ABSTRACT OF SPLEEN RATE FOR THE AREA UNDER EACH MEDICAL  
OFFICER FOR THE YEAR 1931.

Station	Total number of Children examined	Enlarged Spleens	Spleen Rate
<i>District Medical Officers.</i>			
Nicosia .. .. .	7,385	304	4.1
Larnaca .. .. .	3,114	399	12.8
Limassol .. .. .	2,684	115	4.1
Famagusta .. .. .	1,772	52	2.9
Paphos .. .. .	1,629	166	10.1
Kyrenia .. .. .	2,702	395	14.5
<i>Medical Officers.</i>			
Morphou .. .. .	2,054	351	17.0
Lefka .. .. .	1,808	231	12.7
Lythrodonda .. .. .	820	93	13.0
Pedoulas .. .. .	974	40	4.0
Pyrgos .. .. .	417	32	7.6
Palæokhorio .. .. .	815	45	5.5
Klirou .. .. .	873	225	25.7
Lefkara .. .. .	1,787	170	9.5
Athiænou .. .. .	1,184	286	23.6
Agros .. .. .	804	27	3.2
Anoyira .. .. .	1,199	150	12.5
Episkopi .. .. .	372	94	25.2
Kellaki .. .. .	842	157	18.2
Kilani .. .. .	1,427	139	10.0
Yerasa .. .. .	380	70	18.4
Lefkoniko .. .. .	3,185	235	7.4
Leonarissó .. .. .	2,380	257	10.7
Vatili .. .. .	1,314	375	28.5
Akhna .. .. .	1,479	383	25.8
Kelokedhara .. .. .	873	268	30.6
Polis .. .. .	784	164	20.9
Stroumbi .. .. .	1,108	225	20.3
Statos .. .. .	594	199	33.5
Lyso .. .. .	477	172	36.0
Myrtou .. .. .	840	219	19.1
Total .. .. .	48,076	6,038	12.5

ABSTRACT OF SPLEEN RATE RETURNS OF THE SIX TOWNS  
FOR THE YEAR 1931.

Town	Total number Examined	Enlarged Spleen	Spleen Rate
Nicosia .. .. .	3,934	59	1.4
Larnaca .. .. .	1,849	63	3.4
Limassol .. .. .	2,412	83	3.4
Famagusta and Varosha .. .. .	1,175	26	2.2
Ktima and Paphos .. .. .	714	29	4.0
Kyrenia .. .. .	429	40	9.3
Total .. .. .	10,513	300	2.8



## DETAILED FIGURES OF IMPORTANT ANTI-MALARIAL WORKS CARRIED OUT.

	Nicosia	Larnaca	Limassol	F'gusta.	Paphos	Kyrenia
River beds, drains, streams, dealt with and new drains made, in miles .. ..	446	597	288	11½	819	92
Wells covered, filled and oiled .. .. .	7,481	7,219	2,489	2,278	85	3,674
Tanks stocked with fish ..	12	103	—	43	135	88
Premises inspected .. ..	198,967	156,146	120,712	131,494	95,330	55,276
Number of visits to villages by Sanitary Staff.. .	3,108	1,551	1,688	1,445	3,558	759
Paris Green used lb. ..	109	134	139	214	205½	12½
Gas Oil used tons .. ..	8½	7½	8	6	7¾	6

QUININE IMPORTED INTO CYPRUS BY THE GOVERNMENT  
EACH YEAR FROM 1927-1931.

Date	Quinine Hydrochlor		Quinine Sulphas		Tabloids Quinine Hydrochlor grs. II	Tabloids Quinine Hydrochlor grs. III.	Tabloids Quinine Hydrochlor grs. V.	Tabloids Quinine Sulphas grs. II.	Tabloids Quinine Sulphas grs. III.	Tabloids Quinine Sulphas grs. V.	Tabloids Quinine Tannas grs. II.
	lb.	oz.	lb.	oz.							
1927	88	8	635	13	5,000	24,000	10,300	32,000	55,250	101,000	—
1928	20	13	716	11	—	5,000	10,000	73,000	76,000	128,000	—
1929	12	8	537	8	—	10,000	20,000	60,000	120,000	120,000	—
1930	18	12	754	—	5,000	20,000	30,000	120,000	120,000	200,000	—
1931	—	—	1,196	—	—	—	—	—	—	—	—

## (b) Communicable Diseases other than at (a) and (c).

*Plague.*—No case of plague occurred in 1931. To conform with the requirements of the International Sanitary Convention rats have been caught in small numbers at the main ports and spleen smears and gland smears (if available) have been sent to the Laboratory. All these were examined and proved negative for plague. Collections of fleas caught off these animals were submitted at the same time. (See Appendix C.)

*Smallpox and Vaccination.*—No case of smallpox occurred in 1931.

The posts of two travelling vaccinators were abolished in 1931 and the work was taken up by the Sanitary Inspectors and Medical Officers. The Sanitary Inspectors are fully occupied in Summer with anti-malarial measures and the general idea was that they could concentrate on vaccinations during the Winter months when vaccine keeps longer owing to the colder temperature.

The number of vaccinations performed was 2,892 as shown in the sub-joined table.

	Primary Vaccinations	Revaccinations.
Successful .. ..	788	35
Unsuccessful .. ..	245	240
Not accounted for ..	1,206	378

The number of vaccinations is much less than for 1930, but it is hoped to recover ground during the coming year.

*Pulmonary Tuberculosis*.—318 cases have been notified in 1931, of these 199 were males and 119 females. The following tables give the details collected from the Notifications forms.

<i>Cases by Districts :</i>	Nicosia	..	97	Larnaca	..	39	Limassol	61
<i>Cases per 10,000 :</i>	„		9.1	„	..	9.8	„	.. 9.9
<i>Cases by Districts :</i>	Famagusta	42	Paphos	..	67	Kyrenia	12	
<i>Cases per 10,000</i>	„	5.8	„	..	14.0	„	4.9	
<i>Cases by months :</i>	Jan.	..	20	April	30	July	..	25
	February	21	May	31	August	..	39	October.. 29
	March	24	June	24	September	45	December	14

*Cases by Age—Sex Groups.*

	0-5	5-10	10-15	15-20	20-25	25-38	38-48	48-55	55-65	65-75
Male .. ..	1	2	3	14	49	53	37	25	10	4
Female .. ..	—	2	3	19	31	21	30	10	1	2

*Cases by Nationality :* British .. 0. Greek .. 227. Turk .. 87. Other..4.

THE FOLLOWING TABLE SHOWS THE NUMBER OF CASES NOTIFIED SINCE 1914.

1914 ..	122	1920 ..	95	1926 ..	296
1915 ..	89	1921 ..	99	1927 ..	305
1916 ..	164	1922 ..	108	1928 ..	338
1917 ..	152	1923 ..	132	1929 ..	594
1918 ..	128	1924 ..	179	1930 ..	305
1919 ..	130	1925 ..	341	1931 ..	318

*Dysentery*.—182 cases were reported, of these 100 were males and 82 females. As in 1930, a small epidemic broke in the Troödos hills. The first case was reported on the 2nd of June and 29 cases of the 32 cases that occurred were notified during June. *Bacillus shiga* was the cause of the outbreak.

The following tables show the details taken from the notifications cards.

<i>Cases by Districts :</i>	Nicosia	..	71	Larnaca	..	16	Limassol	..	48
	Famagusta	14	Paphos	..	31	Kyrenia	..	2	

<i>Cases by Months :</i>	Jan.	..	9	April	..	9	July	14	October	..	16
	Feb.	..	8	May	..	18	Aug.	15	Nov.	..	15
	March	3	June	..	50	Sept.	16	Dec.	..	9	

*Cases by Nationality:* British .. 2. Turk .. 32. Greek .. 147. Other 1.

*Cases by Age—Sex Groups.*

	0-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-75
Male .. ..	28	11	7	6	3	14	9	10	6	5
Female .. ..	23	11	5	4	4	14	10	6	4	1

*The Enterica Group*.—Cases notified each year from 1911.

1911 ..	299	1918 ..	611	1925 ..	175
1912 ..	447	1919 ..	439	1926 ..	123
1913 ..	338	1920 ..	395	1927 ..	95
1914 ..	341	1921 ..	360	1928 ..	139
1915 ..	267	1922 ..	346	1929 ..	178
1916 ..	376	1923 ..	314	1930 ..	145
1917 ..	491	1924 ..	200	1931 ..	179

I think it would be correct to consider that this disease is decreasing in Cyprus due no doubt to the increasing interest in, and the improvement in Sanitation, throughout the Colony. At the beginning of this year we had the “tail end” of the Arghaki epidemic which was reported last year, and we had a similar outbreak at Kythraea this Autumn. Similar measures to those taken at Arghaki were put in force in Kythraea and the temporary hospital at the time of writing this (10th January) has only 2 cases. There is no doubt that delay in the notification of early cases allowed both these epidemics to get larger than they should have. In Kythraea and the surrounding villages 37 cases occurred; at Lakkatamia another focus 18, and at Morphou 25. The number of cases notified in Nicosia was 15.



The following tables give the details taken from the notification cards for 1931. The number of cases notified in 1931 was 94 male, 85 female, making a total of 179.

*Cases by Districts :*    Nicosia .. 108    Larnaca .. 20    Limassol .. 23  
                                  Famagusta    4    Paphos    .. 23    Kyrenia    .. 1

*Cases by Months :*   Jan. .. 14   April .. 2    July .. 22    Oct. .. 29  
                              Feb... 6   May   .. 5    Aug. .. 37    Nov... 16  
                              March 2   June .. 7    Sept. .. 24   Dec. .. 15

*Cases by Nationality :* British .. 1.   Turk .. 32.   Greek .. 143.   Other 3.

*Cases by Age—Sex Groups.*

	0-5	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-
Male .. .. .	8	23	20	16	5	9	8	2	1	—	1
Female .. ..	1	28	19	8	11	8	8	—	—	2	—

The number of antityphoid inoculations given was 1,188.

*Paratyphoid A.*—Ten cases are recorded from Nicosia District. Of these, 5 were male and 5 were female.

*Paratyphoid B.*—Two cases are recorded, both from Nicosia District.

*Trachoma.*—7,824 cases were seen during 1931 as compared with 8,553 of the previous year.

*Glanders and Rabies.*—My attention has been drawn by the Chief Veterinary Officer to entries under these headings in last year's Table of Diseases.

No case of these diseases has ever been seen in Cyprus, and there must have been an error in diagnosis.

(c) *Helminthic Diseases.*

*Schistosomiasis.*—The village of Syrianokhori is the centre of a small area where this disease is found in Cyprus. It is a village of about 300 inhabitants situated near a malarious river in close proximity to swamps. The gardens at and near it belong to persons living in the village or to persons living about 3 miles away at Morphou—the largest village in the Island outside the main towns.

It was not surprising to discover that ten out of the 14 new cases treated this year came from Morphou. No cases have been reported up the Ovgos or Serrakhis river.

Fouadin was the drug chosen this year and proved more satisfactory from the patients' and doctors' point of view. In 1930 we chose the Spring as the season for our campaign and in 1931 the month of December was selected. Dr. Atta who has conducted both these campaigns is very definitely in favour of the Spring time as there are less "colds" about and the patients have recovered more from their malaria of the Summer. It is proposed to repeat this campaign in April of 1933.

Twenty-six cases underwent treatment, of these 23 completed a full course, two had half a course each and one got giddy after the first injection and discontinued it after this injection. This is an improvement on 1930 and proves that the people are slowly beginning to realize the value of the campaign. All the cases that had full treatment last year, were re-examined and found free from ova. Scanty blood cells were found in some and seven had full course of "Fouadin."

The infection of the Morphou cases was traced to a pool where they used to go and bathe in Summer. The result of these two campaigns reflect credit on Dr. Atta, who by his tact and methods, is gradually raising an interest in this disease. Twenty-three persons out of the 217 examined in the two campaigns have not submitted themselves for treatment.

*Ascaris Lumbricoides.*—The increased number of cases reported this year has already been mentioned.



### III. GENERAL MEASURES OF SANITATION.

*Sewage Disposal.*—Forty-three sanitary latrines have been erected at schools and teachers residences during the year, and in addition to these, 8 single and 4 double latrines have been built by the department as models.

Last year we were faced with the difficulty caused by the dislike of the Moslem population to handling the covers of the holes. This was got over by a method which ensured that whenever the door opened, the lid opened at the same time. It has been found, however, much more important to ensure the automatic closure of the lid and this has been done by making the lid fall whenever the door is opened, and a separate contrivance enables the user to open the lid without touching it. These mechanical contrivances are not altogether satisfactory.

*Water Supply.*—A very full survey with both Chemical and Bacteriological analyses has been conducted during the later part of the year and this will be continued until twelve monthly examinations are completed.

We should get some useful data from these.

#### *Sanitary Inspections.*

<i>District.</i>						
—						
Nicosia ..	..	..	..	..	..	3,108
Larnaca ..	..	..	..	..	..	1,551
Limassol ..	..	..	..	..	..	1,688
Famagusta ..	..	..	..	..	..	1,445
Paphos ..	..	..	..	..	..	3,558
Kyrenia ..	..	..	..	..	..	759
Total ..	..	..	..	..	..	12,109

### IV. SCHOOL HYGIENE.

A start has been made with the examination and treatment of children in the School Dental Clinics (see under Hospital and Dispensaries).

### V. INDUSTRIAL HYGIENE.

The mining industry has been stagnant most of the year and little has been done save routine inspections and anti-malarial work. Much remains to be done at the smaller factories.

### VI. HOUSING AND TOWN PLANNING.

I have nothing to add to the report made last year. An inspector whose salary could be found out of fees for inspection is needed. It is also time to provide some training in plumbing.

### VII. FOOD IN HEALTH AND DISEASES.

A large number of samples have been taken and we are, I think, now in a position to lay down standards for Cyprus produce.

Considerable difficulty has been experienced in the matter of prosecutions and the procedure to be followed. I think it will be advisable to make the District Sanitary Inspector the prosecutor in these cases.

### (B.) MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION.

#### *School for Sanitary Inspectors.*

The first session was opened on the 12th January and continued to the 23rd March. Forty-three candidates sat for the preliminary examination. Twenty-three pupils were selected. These came under the following classification.

Department of Health ..	..	..	..	9
Police ..	..	..	..	2
Forest ..	..	..	..	2
Colonial Secretary's Office ..	..	..	..	1
Cyprus Mines Corporation ..	..	..	..	1
Private Students ..	..	..	..	8



The following lecturers and instructors undertook the teaching of subjects mentioned :—

Dr. Blackaby..	..	..	Refuse disposal; Rural Hygiene; Tropical Infectious Diseases.
Dr. Gosden	..	..	Bacteriology.
Mr. Papachrysostomou	..	..	Entomology.
Mr. Roe	..	..	Food Hygiene.
Dr. Strathairn	..	..	Sanitary Law; Building Construction; Quarantine; Sewage disposal; Water; Miscellaneous.
Mr. Serghides	..	..	Map Making and Reading.
Dr. Symeonides	..	..	Leprosy.
Dr. Tahsin	..	..	Trachoma.
Dr. Willimott	..	..	Chemistry and Physics; Meteorology; Food.

The Chief Sanitary Inspector, Mehmet Aziz, gave instruction in office methods and supervised the field training.

Models, diagrams and lecture room equipment to the value of £150 were provided from a grant by Government.

Ten of the students obtained the Sanitary Inspectors Certificate from the Royal Sanitary Institute and six others passed for the local Certificate.

The following were appointed a Board of Examiners for Cyprus by the Royal Sanitary Institute :—

- Dr. G. C. Strathairn, M.B., CH.B., D.P.H., Director of Health, Cyprus.
- A. A. P. D. Stone, O.B.E., F.S.I., A.M.I.C.E., M.I.M. & Cy.E., A.M.I., MECH.E., Director of Public Works, Cyprus.
- R. J. Roe, M.R.C.V.S., D.V.S.M., Chief Veterinary Officer, Cyprus.
- H. M. Morris, M.Sc., F.E.S., Government Entomologist, Cyprus.
- Dr. E. J. Blackaby, M.R.C.S. (Eng.), L.R.C.P. (London), D.T.M. & H., District Medical Officer, Nicosia, Cyprus.
- Dr. Minnie Gosden, M.B., B.S., M.R.C.S. (Eng.), L.R.C.P. (London), Government Bacteriologist, Cyprus.
- Dr. S. G. Willimott, B. Sc., PH.D. (Cantab.), PH.D. (Liv.), A.I.C., Government Analyst, Cyprus.
- Hon. Local Secretary : Dr. G. C. Strathairn.

Cyprus is now an examining centre for candidates from Palestine and Egypt.

In concluding this section of the Report, I desire to thank all those Government Officers who assisted to make this session the success it was. Only those who have experienced it know the amount of extra work entailed in getting lectures and demonstrations prepared.

#### *Health Lectures.*

A series of lectures was delivered to the Turkish teachers and senior students during the Bairam holidays at Nicosia and another series in Summer to the Greek teachers and senior students at Limassol. For details please see the Social Worker's Report (Appendix E.)

Dr. Atta Hikmet gave lectures and distributed pamphlets on Bilharziosis during the campaign at Syrianokhori in December.

A travelling Cinema show has been made use of at some of the villages near Nicosia but we hope to be able to take it further afield this Summer. It consists of an Acme Projector full size and a Homelite Generator and cost under £100. It can easily be packed into the back of a four seater car.

The films which the department has at present are :—

3 Malarial Reels; 2 Venereal Disease Reels; and 2 Mosquito Reels.

*Course in Chemistry.*—The Government Analyst delivered a full series of lectures on Chemistry organic and inorganic. This course is compulsory for all student compounders.



#### IV. PORT HEALTH WORK AND ADMINISTRATION.

The subjoined table shows the number of visits made to vessels during 1931 :—

<i>District</i>	<i>Seaplanes</i>	<i>Steamships</i>	<i>Sailing Ships</i>	<i>Total</i>
Famagusta ..	6	181	196	377
Limassol ..	4	202	224	430
Larnaca ..	—	172	141	313
Karavostassi ..	—	64	40	104
Paphos ..	—	1	114	115
Kyrenia ..	—	2	60	62
Polis ..	—	—	1	1

*Note.*—His Majesty's Navy and Airships have not been recorded.

#### V. MATERNAL, CHILD WELFARE, AND SOCIAL HYGIENE.

##### MATERNAL WELFARE.

The training of midwives continued during the year. Dr. Fraser conducted the lectures at Famagusta during October and the examinations were held in November. Nineteen pupils attended the classes and 17 passed.

During the year, 21 pupils started training, of these one resigned of her own accord and 18 pupils received the Government Certificate.

The Government midwives with their pupils attended to 383 confinements during the year as follows :—

Nicosia ..	80	Kyrenia ..	28
Larnaca ..	121	Paphos ..	6
Limassol ..	89	Morphou ..	2
Famagusta ..	57		

The Government Midwife was transferred from Paphos to Morphou as a local boycott prevented her getting sufficient cases to enable that town to be a training centre. Similarly Kyrenia ceased to be a training centre at the end of the year owing to insufficient cases.

In addition to these cases, pupils were trained at the Maternity wards in Nicosia General Hospital where 195 cases were delivered. The following table gives the details of these cases.

##### NICOSIA MATERNITY WARDS.

Cases—(1) Normal ..	135
(2) Complicated ..	60
(3) Total ..	195
<i>Deaths of—</i>	
(1) Mother ..	4
(2) Infants born alive ..	5
(3) Infants still born ..	22
<i>Sex—</i>	
Male ..	120
Female (7 sets twins) ..	82
<i>Operations—</i>	
Cæsarian Section ..	5
Version ..	7
Application of Forceps ..	12
Retained Placenta removal ..	3
<i>Diseases and Complication affecting Mother:—</i>	
Albuminuria ..	4
Hæmorrhage :—	
Post Partum ..	4
Ante Partum ..	8
Hydramnios ..	1
Puerperal Sepsis ..	3
Pernicious Anæmia ..	2
Malaria ..	10
Mitral disease ..	2
<i>Diseases and Complications affecting Infant—</i>	
Asphyxia Blue ..	9
Asphyxia White ..	5
Maceration of foetus ..	1
Malformation ..	1

*Infant Welfare Centres.*—See Social Worker's Report (Appendix E.)



## VI. HOSPITALS AND DISPENSARIES.

*General.*—The attached table showing the amount of work done at various institutions for the past five years shows clearly an immense increase in general with the exception of Kyrenia Hospital. The number of day cases has increased during this period from 42,336 to 60,846 and the major operations from 721 to over 1,300. It is to be noted that the disturbances which took place in the month of October caused a considerable falling off in the numbers of out-patients and of applicants for admission to the Hospitals.

The training of probationer nurses mentioned in last year's Report has been continued.

Both Nicosia and Limassol Hospitals are proving too small for the numbers applying for admission, and suggestions are being submitted for increasing the accommodation at these institutions.

Dr. Miltiades Coureas and Dr. Stellios Papadopoulos have been appointed Consulting Physician and Consulting Surgeon respectively at Nicosia Hospital, and Dr. A. Gavrielides, Consulting Surgeon at Limassol.

The intention of these appointments was to give the local practitioners some interest in the hospitals and to increase the training facilities at these stations.

The general idea involved is to make both these Hospitals post graduate centres where the Government Medical Officers—many of whom have been years at out-stations—may be stationed for one or two years and learn practically up-to-date methods.

*Mental Hospital.*—See the Medical Superintendent's Report (Appendix F.)

*Leper Farm and Hospital.*—Our main aim is to make this institution as popular as such an institution can be by getting good results from treatment, by making the living conditions as much like those that the patients are accustomed to in their own homes as possible, and by avoiding any suggestion of imprisonment as far as reasonable.

### *The 1931 Statistics for the Leper Farm.*

Remaining on 31st December, 1930	..	..	89
Admitted during 1931	..	..	10
Re-admitted during 1931	..	..	—
			—
			10
			—
			99
Parolled in 1931	..	..	6
Died	..	..	4
			—
			10
			—
Remaining on 31st December, 1931	..	..	89
			==

*Healthy Children of Lepers Home.*—There were 7 children remaining in this institution on 31st December, 1931. The total cost to Government for the year was £223 which comes to under £32 a child.

*Sanatorium.*—We started out at the beginning of the year with the idea that this institution should be reserved for cases who would benefit by sanatorium treatment and care was taken in the selection for admission. By this means we hoped to provide an institution that would become popular instead of having its previous reputation as place where no patient came out alive.

It has not been possible, however, to carry out this idea completely as there was no place for persons in the last stages of the disease and a few of these have been admitted. Notwithstanding this, the reputation that this institution is developing is seen by the number of persons applying for admission.

The institution is well equipped and the treatment has been well organized. Credit is due to the Matron for bringing this hospital to such a high state of efficiency.

Statistics for 1931 :—

Remaining on 31st December, 1930	..	..	..	18
Admitted during the year	..	..	..	58
Discharged in 1931	..	..	..	36
Died in 1931	..	..	..	12
Remaining on 31st December, 1931	..	..	..	28

*Tuberculosis Clinic.*—A Tuberculosis Clinic was opened at Nicosia in the hospital grounds to provide a place where suspected cases could be examined and where cases living at home could be advised as to treatment and prevention of spread. It serves also as a place where cases can be selected for sanatorium treatment.

Statistics for 1931 :—

New patients seen	..	..	..	131
Old patients seen (visits)	..	..	..	430
Patients found to have Tuberculosis	..	..	..	73
Patients found not to have Tuberculosis	..	..	..	58
Patients sent to Sanatorium	..	..	..	37

*Venereal Disease Clinics.*—See Appendix B.

*Dental Clinics.*—Three dental clinics have been working since the 1st of October. In addition, the dentist at Larnaca has been paid by the municipality to work all the year at the Hospital. His Government time is used wholly in school dental work.

	Consultations	Abscess treated	Extractions	Fillings			Scaling	Other diseases of the mouth
				Amalgam	Cement	Porcelain		
Nicosia .. .. .	1,214	3	47	18	10	3	8	—
Larnaca School ..	1,249	—	275	—	39	—	—	32
Larnaca Hospital	459	—	338	—	—	—	—	209
Limassol .. .. .	422	—	—	—	—	—	—	—

From the Nicosia report we get the following interesting figures :—

Institution	Number Examined	Good teeth	For Ex-traction	For Filling	For Scaling	Refusing Examination	Tooth less
Sanatorium .. .. .	38	7	11	26	—	—	—
Mental Hospital, Males ..	119	18	61	34	—	16	2
Mental Hospital, Females	54	11	31	11	—	—	—
Central Prison .. .. .	18	7	2	5	6	—	—
Moslem School, Boys ..	238	117	96	50	—	—	—
Moslem School, Girls ..	280	58	183	123	—	—	—
Greek School, Boys .. ..	132	26	90	71	—	—	—
Greek School, Girls.. ..	292	80	141	145	—	—	—



The percentage under each heading for the Moslem and Greek Schools is as follows :—

	Moslem	Greek
Mouth in good condition .. .. .	28%	19%
Teeth to be extracted .. .. .	45%	42%
Teeth to be filled .. .. .	27%	39%

The percentage of children with bad teeth in Moslem schools is 72% and in Greek schools is 81%. The figure may at first sight appear enormous. But in the Report of the Chief Medical Officer of the Board of Education, England, for 1922, p. 81, we find the following statement :—

“ In broad terms, the present position is this. Where no dental treatment is available 70–80% of the school children show definite decay..... Where action has been taken the figure falls to 40–50%.

#### STATEMENT OF THE AMOUNT OF WORK PERFORMED YEARLY AT THE SIX HOSPITALS FOR THE YEARS 1927–1931.

Year	In-patients	Day-cases	% Deaths to No. of in-patients	Out-patients	Dressings	Prescriptions Dispensed	Major operations	Maternity cases	Midwives trained	Number of beds
<b>Nicosia</b>										
1927	1,305	14,736	3.9	—	—	—	540	—	—	—
1928	1,385	19,543	4.1	—	—	—	454	—	—	—
1929	1,432	21,067	4.8	—	—	—	493	—	—	—
1930	1,596	22,513	4.7	14,617	15,600	73,041	574	193	—	77+4 cots
1931	1,622	21,491	4.8	13,855	—	80,600	647	195	—	78+4 cots
<b>L'ssol.</b>										
1927	489	5,803	4.5	—	—	—	53	—	—	—
1928	494	5,922	3.0	—	—	—	95	11	—	—
1929	600	8,979	4.5	5,003	—	38,267	164	30	—	—
1930	719	11,096	5.9	8,795	—	47,385	223	34	—	45
1931	763	13,855	6.4	10,602	19,234	42,401	312	63	—	49
<b>Larnaca</b>										
1927	784	5,438	2.3	—	—	—	51	—	—	—
1928	661	7,355	1.6	3,355	—	14,387	61	15	—	—
1929	754	9,125	3.0	6,000	—	26,957	85	63	—	—
1930	873	9,125	3.0	8,822	6,877	31,017	122	69	—	35
1931	796	9,466	4.6	10,440	11,332	26,521	106	44	—	34+2 cots
<b>F'gusta.</b>										
1927	505	7,518	3.3	—	—	—	36	—	—	—
1928	625	7,246	3.5	4,575	2,923	—	70	—	—	—
1929	528	7,555	3.4	4,832	3,502	—	79	—	—	—
1930	656	7,665	3.2	5,217	3,318	18,302	100	—	—	32
1931	627	7,449	3.3	6,297	9,262	19,213	147	9	—	37+2 cots
<b>Paphos</b>										
1927	304	4,015	3.2	—	—	—	8	—	—	—
1928	299	4,754	6.6	2,133	—	—	32	—	—	—
1929	316	4,599	6.0	2,118	—	—	23	—	—	—
1930	366	5,183	3.6	3,154	—	8,614	48	—	—	22
1931	375	5,344	6.6	3,221	26,620	13,980	45	6	—	22+1 cot
<b>Kyrenia</b>										
1927	444	4,526	1.5	—	—	—	33	—	—	—
1928	436	5,416	0.8	—	—	—	7	—	—	—
1929	335	4,307	1.4	—	—	—	6	—	—	—
1930	280	2,920	1.7	—	—	5,747	8	—	—	22
1931	408	2,772	2.2	4,097	3,704	8,692	33	13	—	31+3 cots
<b>Mental Hospital</b>										
1931	253	61,210	3.9	—	—	—	—	—	—	181
<b>Sanatorium</b>										
1931	76	10,418	15.7	—	—	—	—	—	—	40
<b>Leper Farm Hospital</b>										
1931	45	1,105	8.8	—	—	—	—	—	—	14

## VII. CONTROL OF PROFESSIONAL PRACTICE.

(a) *Medical Council*.—The Medical Assessors, who function as a Medical Council, met on seven occasions during the year.

(b) *Medical Practitioners*.—22 Medical Practitioners were registered during the year with qualifications from the following schools :—

Athens	..	..	..	14	London	..	..	1
Russia	..	..	..	1	Dublin	..	..	1
Constantinople	..	..	..	2	Berlin	..	..	1
Gratz	..	..	..	1	Lausanne	..	..	1

(c) *Dental Practitioners*.—Three dentists were registered from the following schools :—

Athens, 1 ; Ecole Dentaire Francaise, 3 and 1 dentist was licensed to practice.

(d) *Druggist and Pharmacists*.—5 were registered, four local and one from Athens.

(e) *Control of Dangerous Drugs*.—The chemists are getting a better knowledge of the laws and regulations and as a result their books are much better kept. The Inspectors have continued their inspections but no case was found for prosecution.

The number of permits issued for the local transfer of dangerous drugs between authorized persons is 159.

TABLE SHOWING THE AMOUNT OF DANGEROUS DRUGS FOR WHICH LICENCES TO IMPORT HAVE BEEN GRANTED DURING THE YEAR 1931.

Name of Drug	Quantity			
	No.	lb.	oz.	grs.
PURE DRUGS.				
Medicinal opium (in powder or granulated) ..	—	—	1	334
Morphina (in the form of its preparations) ..	—	—	5	237
Cocaina (in the form of its preparations) ..	—	1	13	143
SALTS.				
Cocaine Hydrochlor .. .. .	—	1	9	85
Heroin .. .. .	—	—	—	293
Morphine Hydrochlor .. .. .	—	—	1	100
Papaverine .. .. .	—	—	—	231
PREPARATIONS.				
Ampoules Morphine Hydrochlor 0.01 ..	1,164	—	—	—
„ „ „ 0.02 ..	1,316	—	—	—
„ „ with Atropine 0.01 ..	500	—	—	—
„ Pantopon 0.02 .. .. .	36	—	—	—
„ Sedol 0.006 .. .. .	3,222	—	—	—
„ Tropain .. .. .	12	—	—	—
Extractum Opii Siccum .. .. .	—	—	—	25
Tabloids Pantopon 0.01 .. .. .	300	—	—	—
„ Hypodermic Colic .. .. .	216	—	—	—
Tinct. Opii Crocat. .. .. .	—	8	4	—
„ Opii .. .. .	—	2	3	—
Nepenthe .. .. .	—	—	10	—
Sol. Ipecopan 25 bottles by 15 c.c. each bottle	—	—	—	—
Tabloids Ipecopan .. .. .	400	—	—	—



VIII. METEOROLOGY.

METEOROLOGICAL RETURN FOR THE YEAR 1931.

	Solar Maximum	Temperature of				Rainfall		Wind	Average Force (0-10)	Remarks
		Minimum on Grass	Shade Maximum	Shade Minimum	Range	Mean	Amount in Inches	Degree of Humidity %		
January ..	..	28	67	33	34	50.00	2.85	79.16	E.	Cold weather.
February ..	..	35	67	38	29	52.50	3.33	82.27	N.W.	Cold and rainy weather.
March ..	..	26	80	32	48	56.00	1.60	71.33	S.E.	Fair weather.
April ..	..	37	85	42	43	63.50	1.19	63.08	S.E.	Fair weather.
May ..	..	40	100	49	51	74.50	2.24	57.43	N.W.	Fair weather.
June ..	..	47	103	60	43	81.50	1.05	53.00	N.W.	Hot weather.
July ..	..	44	104	66	38	85.00	Nil.	51.82	N.W.	Very hot weather.
August ..	..	51	106	65	41	85.50	Nil.	61.16	N.W.	Very hot weather.
September ..	..	36	107	55	52	81.00	0.13	63.31	N.W.	Very hot weather.
October ..	..	39	93	51	42	72.00	0.55	65.45	N.W.	Fair weather.
November ..	..	29	78	36	42	57.00	Nil.	69.58	N.E.	Fair weather.
December ..	..	24	68	31	37	49.50	0.30	79.24	N.W.	Cold weather.
Average ..	..	36.33	88.17	46.50	41.67	67.33	1.10	66.40		1.56
Absolute ..	..	24	107	31	76		13.24			

### IX. SCIENTIFIC.

The following paper was published :—

“ A fatal case of quinine poisoning.” S. G. Willimott,<sup>1</sup> B.Sc., Ph. D.,  
Government Analyst.

The Lancet, Nov. 21, 1931, p. 1133.

### X. RECOMMENDATIONS.

1. Six small Isolation Hospitals for Consumptives.
2. New Sisters' quarters at Limassol and the conversion of their present quarters into extra ward accommodation.
3. New sanitary arrangements at Nicosia Hospital and the enlargement of bed accommodation by a slight alteration of the interior.
4. A Health Unit.
5. The appointment of part time dentists for Paphos, Famagusta and Kyrenia and the appointment of a full time Travelling School Dentist for work in out villages.
6. The conversion of all insanitary latrines in Government Buildings to a sanitary type.
7. Increase in the number of warders at the Mental Hospital and providing them with quarters.
8. Provision of two small wards for special cases at the Mental Hospital.
9. A campaign to install sanitary latrines in villages.
10. A Central Registry Office.

G. C. STRATHAIRN,  
*Director of Health, Cyprus.*

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## APPENDIX A.

**THE REPORT OF THE SURGICAL SPECIALIST FOR 1931.**BY DR. C. H. CUFF, *Surgical Specialist, Cyprus.*

The year 1931 has been an exceptionally heavy one, as regards surgical work. There has been an all round increase in operative and out-patient work, especially in Limassol, and the need for increased accommodation, both there and in Nicosia, is urgent. A new X-Ray apparatus has been installed in Nicosia, and the old machine set up in Limassol, where it supplies a long felt and urgent need.

**RETURN OF SURGICAL OPERATIONS OF 1931.**

	Total Cases	Cured	Relieved	Unrelieved	Total
Abscess .. .. .	130	113	13	—	4
Amputations .. .. .	16	8	4	—	4
Glands (Excision of) .. .. .	24	21	3	—	—
Hernia .. .. .	178	174	—	—	4
Hydrocele .. .. .	14	14	—	—	—
Hæmorrhoids .. .. .	9	9	—	—	—
Fistula .. .. .	31	23	6	1	1
Tonsils .. .. .	30	30	—	—	—
Mastoids .. .. .	19	15	3	—	1
Thyroid operations .. .. .	2	2	—	—	—
Frontal Sinus .. .. .	4	2	2	—	—
Eye .. .. .	18	18	—	—	—
Hydatid Cyst .. .. .	12	5	5	—	2
Benign Tumours .. .. .	71	65	3	3	—
Malignant Tumours—					
(a) Breast .. .. .	12	1	10	1	—
(b) Uterus .. .. .	24	3	17	3	1
(c) Other Sites .. .. .	63	13	42	6	2
Open operations on Fractures and Joints .. .. .	40	34	6	—	—
Open operations on nerves .. .. .	6	5	1	—	—
Osteomyelitis .. .. .	11	4	7	—	—
Trephining .. .. .	4	1	1	—	2
Plastic operations .. .. .	23	16	7	—	—
Blood Transfusion .. .. .	5	2	3	—	—
Laparotomy .. .. .	18	3	6	2	7
Appendicectomy .. .. .	145	138	1	1	5
Gastro-Intestinal operations .. .. .	7	2	2	—	3
Cholecystectomy .. .. .	2	2	—	—	—
Hysterectomy .. .. .	16	16	—	—	—
Hysteropexy .. .. .	5	5	—	—	—
Salpingo-oophorectomy .. .. .	30	27	2	—	1
Cæsarian Section .. .. .	7	7	—	—	—
Cystotomy .. .. .	18	14	—	2	2
Splenectomy .. .. .	1	1	—	—	—
Nephrectomy and Nephrotomy .. .. .	2	2	—	—	—
Transplantation of Ureter .. .. .	2	—	2	—	—
Male Genital Organs .. .. .	16	12	3	—	1
Thoracotomy .. .. .	18	12	4	—	2
Miscellaneous .. .. .	207	175	16	8	8
Minor operations .. .. .	223	223	—	—	—
Total .. .. .	1,463	1,217	169	27	50

**LECTURES.**

During the year, courses of lectures on Anatomy, Physiology and Nursing were given to the probationers at Nicosia Hospital. The result of the examination was satisfactory. These lectures are being continued together with a second year course on medical and surgical principles. In this connection, it may be remarked that great difficulty exists in obtaining suitable Cypriot girls as probationers. There appears to be an idea that the profession of a nurse is a very low one, and the result is that most of the applicants are girls



of little or no education, who take up the work for the sake of obtaining a living, and who rarely exhibit any interest in their work. The provision of suitable nurses' quarters, to include accommodation for both English and Cypriot staff, would, I believe, be of considerable value in attracting a better type of girl to the profession.

The question of extra accommodation is becoming increasingly urgent and will have to be faced in the near future. Both male and female beds are constantly occupied and serious cases are sent, almost daily, away. A temporary wooden pavilion would ease the situation for a while.

The work in the aided District Hospitals has somewhat increased and more serious cases are being dealt with, thus relieving the pressure on Nicosia. They still labour under great financial difficulties and are poorly and inefficiently staffed.

CANCER.

During the year, 142 cases of cancer have been admitted to hospital as against 92 during 1929, and 107 during 1930. It may be stated at once, that the majority of these people arrive for the first time with the disease well advanced and quite beyond cure. Palliative treatment with radium, however, continues to give in certain cases great relief, and occasionally produces astonishing results. (Vide next section). The figures for cancer of the cervix show a considerable increase, 31 as against 18 for last year. They were so advanced in degree that only 11 were suitable for radium therapy. No cases of cancer of the corpus were seen. Cancer of the stomach showed an increase of 11 as to 3. It will be noted that malignant disease of the colon and rectum are very rare. The number of cases affecting the face (including lips) is as usual high, and is found practically exclusively in agricultural workers, who are daily exposed to the fierce sunlight, in a dry atmosphere, a condition favourable to the caustic action of the ultra-violet rays of the sun. All the cervical cases were multiparæ, and most of them showed signs of severe laceration. Even breast cancers arrive for a first consultation in a stage of advancement that one must see in order to believe.

Sarcoma shows an increase of 50%.

PROPAGANDA.

This resolves itself, here as elsewhere, into an intensive and simple education of the public on the subject of cancer, and of post-graduate instruction of medical men. To this end, a series of pamphlets are being prepared for circulation, one dealing with malignant disease of the breast and uterus, and another on cancer generally. These are couched in simple and non-alarming language and, it is hoped, will encourage sufferers to come early for examination.

Owing to shortage of staff and increase of work, lectures on the subject could not be given during the year, and the film obtained was found to be unsuitable.

A new cancer table has been prepared, which shows at a glance, number, sex, age, race, situation and type of growth.

*Note.*—Cancer has now been made notifiable, and lectures have commenced.

RADIUM TREATMENT OF CANCER.

The treatment of malignant disease by radium commenced in 1930, was continued on the same lines during 1931, with, on the whole, very satisfactory results. Much of the treatment given was of necessity palliative, but was none the less of great value. A glance at the comparative table shows an improvement in results, due partly to an increase in early cases of cancer of the face and uterus treated, and improved technique.

RADIUM.

*Comparative Table.—Table I.*

<i>Site</i>			<i>No.</i>	<i>A.C.</i>	<i>I.</i>	<i>N.I.</i>	<i>D.</i>
—			—	—	—	—	—
Uterus	..	..	11	6	5	—	—
Face	..	..	20	15	5	—	—
Other Sites	..	..	19	10	7	—	2
			—	—	—	—	—
Total	..	..	50	31	19	—	2
			==	==	==	==	==



*Sarcoma Table.—Table II.*

<i>Site</i>	<i>Rad.</i>	<i>Sex</i>	<i>Duration</i>	<i>Mg.</i>	<i>H.</i>	<i>Result</i>	
Neck .. ..	76	M	10.5	10,296	G.D.	2 applications	
Cheek .. ..	26	M	17.	4,872	G.D.		
Neck .. ..	90	M	12.	13,230	G.D.	2 applications	
Buttock ..	70	M	11.	9,432	G.D.	2 applications	
Neck .. ..	40	M	6.	5,760	M.I.		
Abdominal Wall	15	F	6.	2,160	G.D.		
Scalp .. ..	20	M	5	2,400	M.I.		

*Note.*—G.D. Growth disappeared. D. Died  
M.I. Much improved. U.K. Unknown.  
I. Improved. A.C. Apparently cured.

Seven cases of sarcoma were treated by radiation. Five of these were far advanced and quite beyond the scope of surgery, and the sixth (abdominal fibro-sarcoma) had recurred 3 times after operation. The immediate effect of treatment has resulted in the disappearance of the primary growth in 5 cases. In one instance (neck) the growth had involved the left tonsil and soft palate, and produced dyspnoea and dysphagia, only water being swallowed. He is now, for the time being, apparently quite well and at work. It is too much to hope that all these cases will be permanent cures, metastases being almost inevitable, but they justify the method of treatment and give encouragement. The photographs give some idea of the results obtained.



(Fig. No. 1 of 5/11/31.)



(Fig. No. 2 of 12/2/31.)

*Round celled Sarcoma of Cheek.*

Age 10.

Duration, on admission, 3 months.

Growth involved Mucosa.

Interstitial application of Radium.

1st treatment : 11 mg. R.E., 7 days, 3,192 milligramme hours.

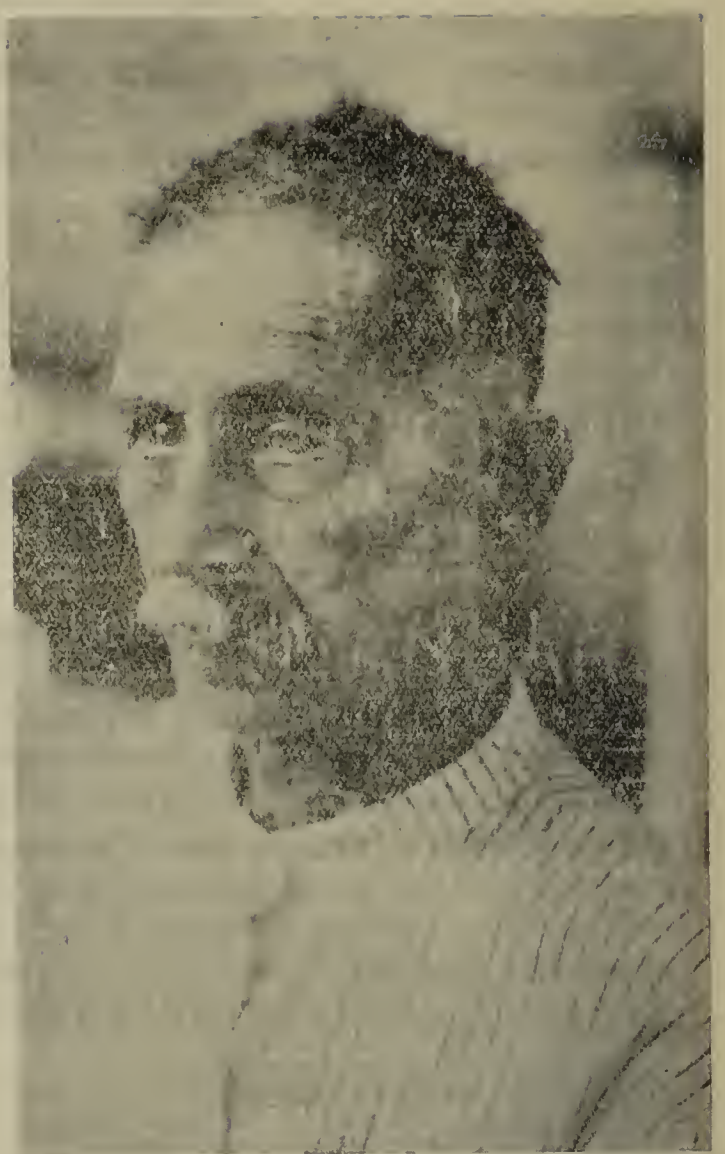
2nd treatment : 7 mg. R.E., 10 days, 1,680 milligramme hours.

Interval, 1 month.





(Fig. No. 1 of 13/8/31.)



(Fig. No. 2 of 2/10/31.)

*Lympho Sarcoma of Neck.*

Involved left tonsil and soft palate, causing dispnoea and disphagia.

Age 65.

Duration, 4 months.

Wax cast (1 c.m.) to neck.

1st treatment: 50 mg. R.E.,  $6\frac{1}{2}$  deep, 7,800 milligramme hours.

2nd treatment: 26 mg. R.E., 4 deep, 2,496 milligramme hours.

Interval, 2 months.

## TECHNIQUE.

In cases of Group I the interstitial method has been largely adhered to, except in the flat or deeply ulcerated type of growth when Columbia paste is preferred. Growths about the eyelids occasionally give rise to a severe iritis and conjunctivitis, in the course of treatment, which can be partly avoided by the use of lead shields. In Group II cervical carcinomata, the Paris method of intra-cavitary application has been continued and appears to be quite satisfactory. Extra rubber screening and gauze packs in the vagina help to avoid complications, such as tenesmus and stricture. The breast cases have been treated partly interstitially and partly by wax castes. The lympho-sarcomata and a case of very extensive lymphadenoma, have been treated with wax castes. The 2 round celled sarcomata (buttock and cheek) were treated by the interstitial method. The tonsil case was treated by a combination of needling and paste.

## RECORDING.

The system of recording adopted is based on that of the Hotel Dieu, Paris, and consists of a series of six coloured cards dealing with different aspects of each case, the whole enclosed in an envelope. These cards deal with history, treatment, operative intervention, histology, "follow up," etc.

Uterine cases are, in addition, recorded on the special forms recommended by the Radiological Sub-Committee of the League of Nations, whose classification has been adopted. An efficient "follow up" is far from easy, but, with the aid of the Mukhtar, much has been done, and the patients themselves are often keen to keep in touch with the Hospital. Wherever possible photographs are obtained.



Dr. Gosden, the Government Bacteriologist, has kindly undertaken the histological examination and is also hoping to prepare sections demonstrating the action of radiation on the tissues from day to day.

REPORT ON SECTIONS FROM CARCINOMA OF THE CERVIX UTERI, AT INTERVALS  
AFTER THE APPLICATION OF RADIUM.

Patient age 35 of Lapithos.

Section I, (before the application of radium) 24.2.32.—Squamous celled, non-keratising carcinoma of Cervix Uteri. There is considerable infiltration with inflammatory cells, notably eosinophiles. The infiltration is mainly in degenerated areas in the masses of cancer cells, and between the masses of cancer cells are strands of fibrous tissue. Some areas of cancer cells show degeneration in the centre, while in most areas the cells occur as solid blocks (Fig. I and II.)



Fig. I.—Section of growth before the application of radium.

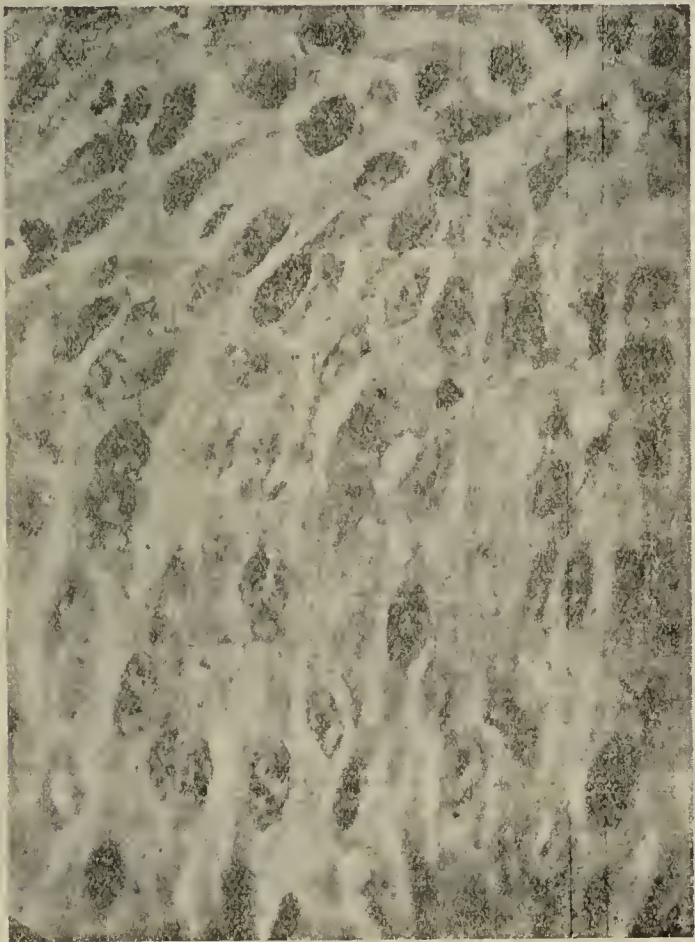


Fig. II.—Details of the Carcinoma cells in Fig. I.

Section II (48 hours after the application of radium) 26.2.32.—There is no marked difference in the histological appearance of this section compared with the preceding one. The infiltration with eosinophiles is marked.

Section III (96 hours after the application of radium) 28.2.32.—This section shows small groups, and in places single cancer cells, surrounded and isolated by tissue composed partly of inflammatory cells, leucocytes, lymphocytes and plasma cells, and partly of structureless hyaline material staining deeply with eosin. This hyaline material is most abundant round the blood vessels.

Section III.—The inflammatory reaction is general and the infiltration with eosinophiles has disappeared.

Section IV (144 hours after the application of radium) 1.3.32.—This section shows an increase in the changes seen in Section III. The hyaline material is much more abundant and the inflammatory reaction less marked.



The cancer cells are very few, and single degenerated cells are sparsely scattered and surrounded with the hyaline tissue. (Fig III and IV.)

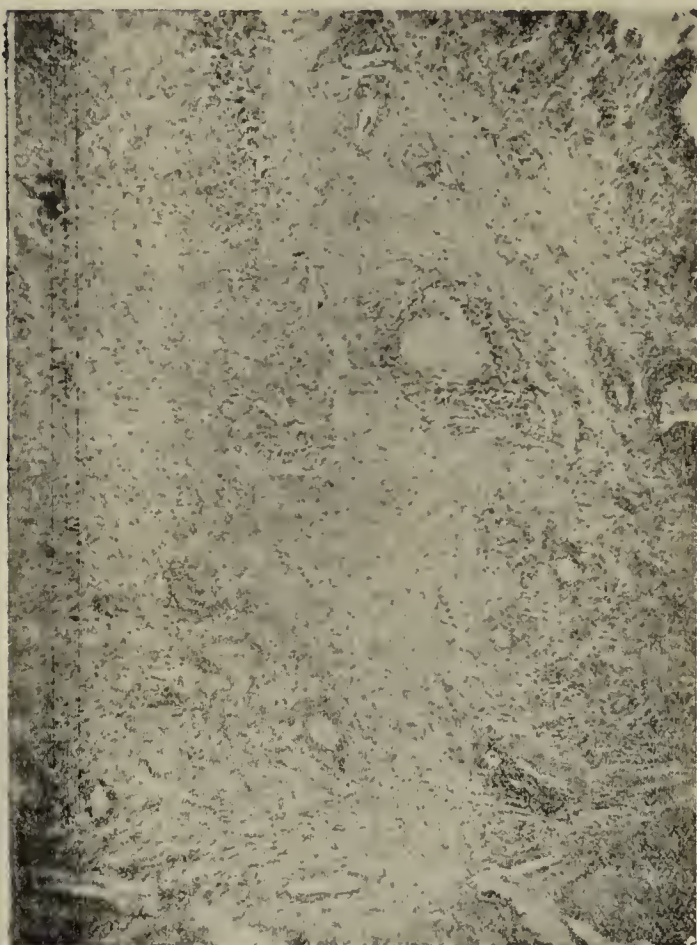


Fig. III.—Growth 6 days after the application.

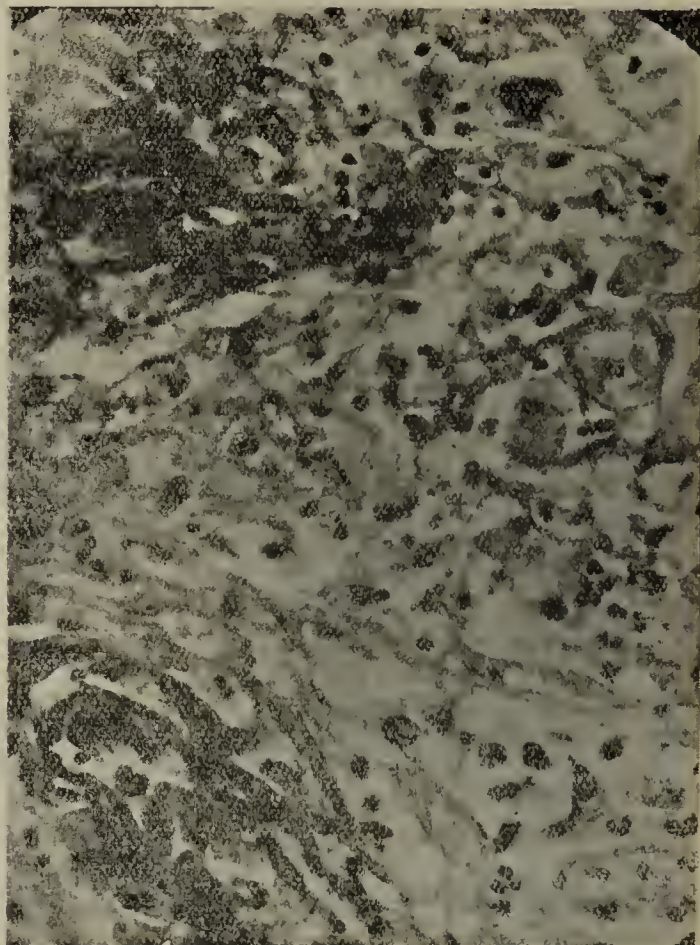


Fig. IV.—Details of tissue in Fig. III.

#### SUMMARY.

The results which have been obtained up-to-date, are, as far as they go, quite satisfactory and certainly encouraging. Most of the cases treated were in an advanced stage, and in the absence of radium would have died miserably. A new and comfortable lease of life is given these people, though, for how long, it is not possible to say. Table (VII) showing the results of 1930 up-to-date is by no means discouraging despite 8 deaths, and the relief given, quite apart from cure, is often very remarkable.

All carcinomata of the cervix and cutaneous cancers are, for the present, being treated with radium.

Second applications, it has been observed, are not as a rule so efficacious as the first, and it is hoped next year to try out the combination of ultra-violet exposures in certain cases. Squamous epitheliomata appear much more radio-resistant than rodent ulcer, or sarcomata.

Owing to the small quantity of radium available (100 milligrammes) much time is lost and patients are kept waiting for treatment. Another 50 milligrammes would be of inestimable service. In fine, as stated last year, radium cannot yet be regarded as a cure for cancer, but it is a powerful and indispensable weapon in the surgeon's armamentarium, as indispensable as the knife; as a palliative it is unsurpassed. Further experience and improved technique will undoubtedly produce better results.



RADIUM TABLES.—GROUP I.—TABLE III.

Site	Radium mg.	Sex	Duration Days	Mg. Hours	Result	
Eyelid .. .. .	1.5	M.	10	360	G.D.	
Inner Canthus ..	2.5	M.	10	610	G.D.	
Nose .. .. .	3.	M.	6	432	G.D.	Paste.
Nose .. .. .	20.	M.	5	2,400	M.I.	V. Advanced.
Lip L. .. .. .	4.	M.	7	672	G.D.	
Hand .. .. .	10.	M.	7	1,680	I.	Not traced
Nose .. .. .	15.	F.	8	2,580	G.D.	
Cheek .. .. .	6	F.	6	864	G.D.	
Cheek .. .. .	6	F.	8	1,152	G.D.	
Lip L. .. .. .	2.5	M.	6	442	G.D.	
Inner Canthus ..	2.	M.	6	288	G.D.	
Lip L. .. .. .	3.	M.	3	216	G.D.	Patient removed needles 3rd day.
Nose .. .. .	7.5	F.	6	1,080	M.I.	Very extensive.
Canthus .. .. .	2.5	M.	8	480	G.D.	Paste
Forehead .. .. .	8.	M.	6	1,152	G.D.	Extensive.
Forehead .. .. .	3.	M.	8	648	G.D.	
Nose .. .. .	2.5	M.	10	600	I.	Wax.
Cheek (2 applications)	26.	M.	17	4,872	G.D.	Sarcoma extensive.
Canthus .. .. .	3.	M.	12	864	I.	

RADIUM TABLES.—GROUP II.—TABLE IV.

Site	Radium mg.	Duration Days	Mg. Hours	Result	
Cervix (2 applications) ..	62	9	6,080	G.D.	Stage I.
Cervix .. .. .	18	3	1,296	M.I.	Stage III.
„ .. .. .	45	4	4,320	M.I.	Stage III.
„ (2 applications) ..	30	6	4,320	G.D.	Stage I.
	60	6	8,640	G.D.	Stage III.
	55	4	5,250	C.D.	Stage I.
	55	6	7,920	G.D.	Stage II.
	30	6	4,320	G.D.	Stage I.
	43	4	4,121	M.I.	Stage III.
	30	5	3,720	M.I.	Stage II.
	30	6	4,320	I.	Stage I.-(recent)

RADIUM TABLES.—GROUP III.—TABLE V.

Site	Sex	Radium	Duration	Mg. Hours	Result	Remarks
Breast .. .. .	F.	82	15	16,080	M.I.	V. Advanced.
Buttock (2 applications) ..	M.	70	11	9,432	G.D.	Sarcoma.
Neck .. .. .	M.	40	6	5,760	M.I.	Lympho-Sarcoma
Breast .. .. .	F.	52	7	8,736	G.D.	Paste.
Thyroid (2 applications) ..	M.	75	9	8,400	D.	6 months later of pneumonia.
Vagina .. .. .	F.	20	7	3,360	G.D.	
Axilla .. .. .	F.	25	4	2,400	G.D.	Subsequent to breast operation.
Larynx .. .. .	M.	23	7	5,544	D.	After 1 month.
Abdominal Scar ..	F.	15	6	2,160	G.D.	Paste.
Rectum .. .. .	M.	15	7	2,520	G.D.	With excision of ulcer.
Breast (2 applications) ..	F.	85	14	13,080	G.D.	
Breast .. .. .	F.	60	7	10,080	I.	Not traced.
Scalp .. .. .	M.	20	5	2,400	M.I.	Fibro-Sarcoma. paste.
Neck .. .. .	M.	38	7	4,764	I.	
Neck (2 applications)	M.	76	10.5	10,296	G.D.	Sarcoma paste.
Tonsil (2 applications)	F.	62	14	20,832	G.D.	Interstitial and Paste.
Neck and Axilla (2 applications) ..	M.	90	12	13,230	G.D.	Extensive paste.
Toe .. .. .	F.	5	10	1,200	I.	

TABLE VI.

	Total Cases	Race	Larynx	Stomach	Intestines	Liver	Breast	Uterus	Ovary	Penis	Prostate	Bladder	Thyroid	Tongue	Tonsils	Other Sites
Males ..	58	27	2	8	2	4	1	—	—	3	—	2	1	1	—	7
Females ..	84	22	—	3	2	7	12	31	2	—	—	1	—	1	1	2
Grand Total	142	49	2	11	4	11	13	31	2	3	—	3	1	2	1	9
Average Age.	51.03	51.18	56.0	50.50	37.50	45.50	64	—	—	47.73	—	55.0	54	48	—	51.71
Males ..	47.44	54.59	—	57.0	44.50	45.57	48.58	43.38	50.0	—	—	20	—	50	31	42.50
Females ..	14	8	1	—	1	1	—	—	—	—	—	1	—	—	—	1
RACE:—																
MOSLEMS	14	8	1	—	1	1	—	—	—	—	—	1	—	—	—	1
Males ..	14	3	—	—	—	1	3	4	1	—	—	—	—	—	1	—
Females ..																
NON-																
MOSLEMS	44	10	1	8	1	3	1	—	—	3	—	1	1	1	—	6
Males ..	70	19	—	3	2	6	9	27	1	—	—	1	—	1	—	2
Females ..																
TYPE:—																
CARCINOMA—	34	11	1	8	1	2	1	—	—	3	—	2	1	1	—	3
Males ..	71	12	—	3	2	6	12	31	1	—	—	—	—	1	1	2
Females ..																
SARCOMA—	15	8	1	—	1	2	—	—	—	—	—	—	—	—	—	3
Males ..	6	3	—	—	—	1	—	—	1	—	—	1	—	—	—	—
Females ..																
RODENT																
ULCER—	9	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Males ..	7	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females ..																



TABLE VII.  
RADIUM TABLES.—GROUP I.—1930.

Site	Radium (mg.)	Duration (days)	Mg. (hours)	Result	Remarks	Condition Dec., 1931
Cheek .. ..	25	7	4,200	G.D.		D.
Cheek and Lip ..	5	7	840	M.I.	V. Extensive	A.C.
Orbit .. ..	30	10	7,200	G.D.	Melanoma	D.
Eyelid .. ..	5	11	1,320	G.D.	Paste	A.C.
Nose .. ..	5	7	840	G.D.	Paste	A.C.
Nose .. ..	5	10	1,200	G.D.	V. Advanced	A.C.
Lip .. ..	5	10	1,200	G.D.		A.C.
Cheek .. ..	20	13	6,240	G.D.	V. Advanced.	A.C.
Cheek .. ..	19	9	4,104	G.D.		A.C.
Nose and Cheek ..	6	6	864	G.D.		A.C.
Nose and Cheek ..	9.5	7	1,596	G.D.		A.C.
Forehead .. ..	6	6	864	G.D.		A.C.
Nose .. ..	6.5	8	1,440	G.D.		A.C.
Cheek .. ..	3.0	6	432	M.I.	Paste.	A.C.
Penis .. ..	3.5	7	908	M.I.		A.C.
Scalp .. ..	14.5	7	2,436	G.D.		A.C.
Cheek and Lip ..	15	7	2,520	M.I.	Extensive	A.C.
	20	4	1,920		2 treatments	A.C.
Nose .. ..	5	7	940	G.D.	Paste.	A.C.
Cheek .. ..	12.5	8	2,300	G.D.		A.C.
Lip .. ..	3.0	10	720	G.D.		D. Erisipelas.
Forehead and Cheek	28.0	6	4,032	M.I.		
Penis .. ..	15	10	3,600	M.I.	V. Extensive	Amputation
Penis .. ..	3.5	7	588	M.I.		G.D.
Nose .. ..	4	18	1,728	M.I.	Paste	A.C.
Nose .. ..	3.5	10	840	M.I.		A.C.
Eyelids, Cheek ..	25.0	10	6,000	M.I.		A.C.
Eyelid .. ..	1.5	10	360	M.I.		A.C.
Shoulder .. ..	14	5	1,680	G.D.		A.C.
GROUP II.						
Cervix .. ..	32	7	5,376	D.	Stage IV.	
" .. ..	25	7	4,200	M.I.	Stage III.	A.C.
" .. ..	80	6	11,520	G.D.	Stage I.	A.C.
" .. ..	30	8	5,460	U.K.	Stage I.	A.C.
" .. ..	30	5	3,600	M.I.	Stage II.	A.C.
" .. ..	75	7	12,600	I.	Stage III.	D. Metastasis 8 months
" .. ..	70	9	6,300	G.D.	Stage II.	
" .. ..	50	6	7,200	M.I.	Stage IV.	D. 1 year.
" .. ..	90	5	11,800	M.I.	Stage III.	D. 9 months.
" .. ..	75	5	9,000	G.D.	Stage I.	A.C.
GROUP III.						
Breast .. ..	26	10	6,240	I.	Male	D. G.D. cardiac 10 months.
Breast .. ..	50	8	9,600	D.	V. Advanced	
					Recurrent	—
					Paste	
Breast .. ..	34	12	9,792	I.		D. 6 months.
Orbit .. ..	10	11	2,600	M.I.	Sarcoma	A.C.
Neck .. ..	35	7	5,880	D.	Sarcoma	
					V. Advanced	—
Breast .. ..	28	7	4,704	I.		A.C.
Pelvis .. ..	50	6	7,200	I.	From Uterus	D. 9 months.
Breast .. ..	85	5	10,200	I.		U.K.
Maxilla .. ..	40	6	5,760	I.		I.
Axilla .. ..	27	8	4,914	G.D.	From Breast	A.C.
Breast .. ..	21	9	4,536	G.D.	Male.	A.C.

Note.—G.D. Growth disappeared. D. Died.  
M.I. Much improved. U.K. Unknown.  
I. Improved. A.C. Apparently cured.

TABLE VIII.

<i>R.E.</i>	<i>Radium Dosage Table (Approx.)</i>								<i>Days</i>
— m.g.	1	1.5	2	2.5	3	4	5	6	
5	12	18	24	30	36	48	60	72	} MilligrammeHours
1	24	36	48	60	72	96	120	144	
2	48	72	96	120	144	192	240	288	
3	72	108	144	180	216	288	360	432	
4	96	144	192	240	288	384	480	576	
5	120	180	240	300	360	480	600	720	
6	144	216	288	360	432	576	720	864	



APPENDIX B.**REPORT ON THE VENEREAL DISEASE CLINICS.**

BY DR. N. CH. MICHAELIDES.

The five clinics mentioned in last year's Report have been working during the whole year, and the staff employed was six Medical Officers, 28 nurses (17 male and 11 female) and a lady secretary. Dr. R. E. Hopton, who had organized and been in charge of the campaign since it started, severed his connection with the Colony at the end of the year to our great regret.

Since its start four years ago, 14,744 patients have attended these clinics, made up of 9,991 males and 4,753 females. During this period the total number of treatments given for gonorrhœa was 495,915 and the number of injections for syphilis was 50,846. The total cost of the campaign down to 31st December, 1931, was £21,059.

**WORK DONE DURING THE YEAR, 1931.**

The work done this year has been carried out on the lines laid down by Dr. Hopton for the previous year. Propaganda in the form of leaflets and lectures has been continued.

**THE PROPHYLACTIC CENTRE AT LARNACA.**

The Prophylactic Centre at Larnaca was started in 1930, continued its activities during 1931, and 6,044 attendances are recorded as compared with 4,811 of the previous year.

**NUMBER OF CASES, ETC.**

We have now five treatment centres, one for each of five districts of the Island.

The actual number of treatments given to new and old cases in all clinics as daily attendances amounts to 221,732.

	<i>Nicosia</i>	<i>Larnaca</i>	<i>Limassol</i>	<i>Famagusta</i>	<i>Paphos</i>	<i>Prisons</i>
Total daily attend- ances for 1931 ..	81,315	37,320	37,043	41,340	23,287	1,217

The new cases seen in all clinics during the year, 1931, amount to 3,568. This is made up of 2,374 males and 1,194 females distributed as shown in the following table:—

**NEW CASES.**

	<i>Nicosia</i>	<i>Larnaca</i>	<i>Limassol</i>	<i>Famagusta</i>	<i>Paphos</i>	<i>Prisons</i>
Males .. ..	818	376	366	461	302	51
Females .. ..	431	255	146	201	161	—
Total .. ..	1,249	631	512	662	463	51

*Males.*

Of the 2,374 male patients, there were 965 cases of Gonorrhœa and 240 cases of Syphilis, and of these 196 were suffering from both Gonorrhœa and Syphilis. 550 cases of acute Gonorrhœa attended the clinics and 127 cases of stricture were treated. There were 75 cases of Epididymitis. Of this number, 63 patients had developed this complication before coming for treatment. 61 cases of Gonorrhœal Rheumatism passed through our hands during the year, and we had 6 cases of Rectal Gonorrhœa under treatment. There were 60 cases of Primary Syphilis and 12 cases of Late Syphilis affecting the nervous system. 151 patients suffered from Venereal Diseases which cannot be classified under either Gonorrhœa or Syphilis, such as balanitis, non-syphilitic sores, etc., of the latter we had 97 cases. In 141 cases the diagnosis was not established, owing to the fact that the patients did not come back for further tests when asked to do so, 681 patients were examined and found to have no Venereal Disease. During the year, 440 patients were discharged as cured, this figure includes cases of Gonorrhœa non-syphilitic sores.



The distribution of male patients is shown in the following table:—

	<i>Nicosia</i>	<i>Larnaca</i>	<i>Limassol</i>	<i>F'gusta.</i>	<i>Paphos</i>	<i>Prisons</i>
Syphilis only .. ..	105	35	41	24	24	11
Gonorrhœa only .. ..	337	137	131	240	100	20
Both Gonorrhœa and Syphilis .. ..	62	32	16	53	20	13
Other Venereal Diseases ..	40	33	22	44	8	4
No Venereal Disease ..	267	79	127	85	120	3
Examination not completed .. ..	7	60	29	15	30	—
Total number of new cases .. ..	818	376	366	641	302	51

*Females.*

Of the 1,194 new female patients, 524 were found to be suffering from Gonorrhœa and 106 from Syphilis, and 161 were infected with both Gonorrhœa and Syphilis. There were 122 cases of acute Gonorrhœa, 17 of which were children suffering from vulvo-vaginitis. We treated 37 women for Gonorrhœal Rheumatism during the year. There were 120 cases of acute salpingitis. Most of these had been suffering from Gonorrhœa for some time before they came to the clinic. There were 10 cases of Primary Syphilis and we saw 17 cases of late Syphilis affecting the nervous system. There were 91 patients suffering from other diseases of venereal origin, which cannot be classified under Gonorrhœa or Syphilis such as non-syphilitic sores, etc. 269 women were found on examination to be suffering from no Venereal Disease. 43 patients failed to return for further examination. Most of our female patients were married women who had become infected by their husbands. 167 professed prostitutes presented themselves for treatment.

The distribution of female patients is shown in the following table:—

	<i>Nicosia</i>	<i>Larnaca</i>	<i>Limassol</i>	<i>F'gusta.</i>	<i>Paphos</i>
Syphilis only .. ..	57	11	13	18	7
Gonorrhœa only .. ..	163	135	51	95	80
Both Gonorrhœa and Syphilis ..	47	48	21	21	24
Other Venereal Diseases ..	20	15	6	40	10
No Venereal Disease .. ..	134	46	39	20	30
Examination not completed ..	10	—	16	7	10
Total number of new patients ..	431	255	146	201	161

*Progress of the Campaign.*

It is well in considering this question to take all the Clinics separately and also consider the total figures for three Clinics that have been open for a period of three complete years.

*Nicosia Clinic opened 19th January, 1928.*

	1929	1930	1931	<i>Average</i>
<i>Males—</i>				
Primary Syphilis .. ..	68	55	15	46
Acute Gonorrhœa .. ..	214	238	222	224
<i>Females—</i>				
Primary Syphilis .. ..	7	7	2	5
Acute Gonorrhœa .. ..	81	43	80	68

*Larnaca Clinic opened 8th October, 1928.*

<i>Males—</i>				
Primary Syphilis .. ..	32	11	13	18
Acute Gonorrhœa .. ..	114	76	109	99
<i>Females—</i>				
Primary Syphilis .. ..	3	—	2	1
Acute Gonorrhœa .. ..	38	21	16	25



C. 98715/32 [No. 1].

PROOF.

No.

CYPRUS.

THE OFFICER ADMINISTERING THE GOVERNMENT to THE SECRETARY  
OF STATE.

(Received 28th September, 1932.)

[Answered by No. .]

(No. 424.)

SIR,

Government House, Troodos, 21st September, 1932.

I HAVE the honour to transmit to you under separate cover 15 copies of the Annual Medical and Sanitary Report for the year 1931.

2. The functioning of the medical and sanitary services during the year, as disclosed in the Report, was satisfactory. There is no doubt room for improvement, but it would appear to lie rather in the direction of the extension of these services than of their reorganization.

3. The Director of Health's specific recommendations for future work are contained in Section X of the Report. I am prepared to agree that the adoption of many of them would be desirable. All, however, involve extra expenditure, and so far from the provision of extra funds being possible, it will actually be necessary to reduce in 1933 the amount at present provided for the Health Department. Happily none of the recommendations are of immediate urgency. As they involve least expenditure, there is most prospect of being able to take some action in the near future on the recommendations for certain structural improvements to Nicosia Hospital and for the appointment of part-time Dentists in those Districts to which none have as yet been appointed.

4. The proposal to establish a Health Unit had, as you will be aware from Sir Ronald Storrs's despatch No. 439 of the 6th November, 1931,\* to be abandoned on the ground of expense. I see no prospect of being able to revive it for some time to come. The recommendation for a campaign to install sanitary latrines in villages was dealt with in the same despatch; and in this connexion I would take the opportunity of observing with reference to the second paragraph of your despatch No. 14 of the 8th January, 1932,† that legislation to amend the Public Health (Villages) Law is now under consideration with a view to improving sanitary conditions in rural areas.

5. As regards the final recommendation for a Central Registry Office, this is referred to more fully on page 11 of the Report. Complete details of Dr. Strathairn's proposal are not yet to hand. I would observe, however, that on the information at present before me I am not convinced that there is sufficient reason to alter the system laid down in the Births and Deaths Registration Law of 1895, even if funds for the establishment of a Central Registry were available.

I have, &amp;c.,

H. HENNIKER HEATON,

Acting Governor.

\* No. 48 in Miscellaneous No. 420.

† No. C. 80405/7/32 [No. 3].

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*Limassol Clinic opened 22nd December, 1928.*

			1929		1930		1931		Average
<i>Males—</i>			—		—		—		—
Primary Syphilis	..	..	27	..	9	..	11	..	16
Acute Gonorrhœa	..	..	173	..	54	..	104	..	110
<i>Females—</i>									
Primary Syphilis	..	..	8	..	3	..	2	..	4
Acute Gonorrhœa	..	..	21	..	20	..	10	..	17

*Famagusta Clinic opened at the end of 1929.*

			1930		1931		Average
<i>Males—</i>			—		—		—
Primary Syphilis	..	..	49	..	11	..	30
Acute Gonorrhœa	..	..	82	..	49	..	65
<i>Females—</i>							
Primary Syphilis	..	..	15	..	2	..	8
Acute Gonorrhœa	..	..	32	..	1	..	15

*Paphos Clinic opened 30th November, 1930.*

			1930		1931		Average
<i>Males—</i>			—		—		—
Primary Syphilis	..	..	18	..	10	..	14
Acute Gonorrhœa	..	..	20	..	66	..	43
<i>Females—</i>							
Primary Syphilis	..	..	4	..	2	..	3
Acute Gonorrhœa	..	..	10	..	15	..	12

*Combined figure for three years at Nicosia, Larnaca and Limassol.*

			1929		1930		1931
<i>Males—</i>			—		—		—
Primary Syphilis	..	..	127	..	75	..	39
Acute Gonorrhœa	..	..	511	..	368	..	435
<i>Females—</i>							
Primary Syphilis	..	..	18	..	10	..	6
Acute Gonorrhœa	..	..	140	..	84	..	106
			796	..	537	..	586

It is difficult to arrive at a satisfying conclusion as to the reason for the reduction of figures for Syphilis and the smaller decrease of cases of Gonorrhœa. There are so many factors to be considered. But I am of opinion that a real reduction is being effected and that such factors as might be accounted for by the passing of a new fashion need not be considered until the numbers of Gonorrhœa cases show a decided decrease.

APPENDIX C.**REPORT OF THE GOVERNMENT BACTERIOLOGIST  
FOR THE YEAR 1931.**

BY DR. MINNIE GOSDEN, M.B., B.S., M.R.C.S., L.R.C.P.

The report for the year 1931 shows the second complete year's work since the Bacteriological Laboratory was organized as a separate unit, apart from the Government Analyst's Department, in March, 1929.

The work during the year consisted of routine diagnostic investigations for Government and private medical practitioners and public health investigations, and has been of a very varied character. The total number of specimens examined was 9,612, which is a decrease of 4 on the previous year. There was a decrease of 276 in the specimens from the V.D. Clinics and 120 in the number of films examined for malaria. There was an increase in all other examinations, especially in pathological examination of tissues, sputum, pharyngeal swabs, and drinking water.

The examinations performed and positive results are shown in detail in table II.

The source of the specimens examined is still mainly from the medical officers of Nicosia Hospital (1,191) and the V.D. Clinics (7,105), there has been a considerable increase in the specimens sent from Limassol Hospital (253).

The services of the laboratory have been much more used by private practitioners during the year, who sent 284 specimens compared with 140 during 1930.

The source and number of specimens received is shown in table I.

The staff of the laboratory was the same as last year, and consisted of :—

- 1 Bacteriologist.
- 1 Bacteriological Laboratory Assistant.
- 1 Clerk (part time).
- 1 Attendant and cleaner.

The services of the clerk and attendant were still shared with the Government Analyst, and the sharing of an attendant is not satisfactory to anyone concerned.

The Bacteriologist wishes to express appreciation of the loyal help and co-operation afforded by the rest of the staff, without which the work of the Laboratory could not be carried on.

**ADDITIONS TO REVENUE.**

A total of £48 5s. 4cp. was received in fees for laboratory investigations. The policy of carrying out tests for the commoner diseases prevalent in Cyprus, viz., phthisis, leprosy, enteric fever, malaria, dysentery, free of charge for private practitioners was continued, and from the increased use made of these facilities this seems to have met a need in the health work of the Island.

**OTHER DUTIES.**

In addition to work in the Laboratory, the Bacteriologist gave lectures, and acted as examiner to the Sanitary Inspector's School, and also gave 2 lectures to school teachers.

**(1) ROUTINE DIAGNOSTIC INVESTIGATIONS.****COMPLEMENT FIXATION TESTS.**

5,107 sera from treated and untreated patients were received for Wassermann reactions. Of these, 954 gave a strongly positive and 308 a weekly positive reaction. 3 cerebro spinal fluids were positive. The method used, as formerly, was that of McIntosh and Fildes. a/

The results of examinations for the different V.D. Clinics open in 1931 are shown in detail in table III. The total number of sera sent is slightly less than last year, while the percentage of positive reactions, except for a decrease from Famagusta and Paphos, shows little alteration, Limassol, as formerly, has the highest percentage of positive reactions.

14 sera were tested for hydatid infection, by the Weinberg reaction, with 4 positive results.



## AGGLUTINATION TESTS.

200 agglutination tests were performed, positive results occurred with the following organisms :—

*B. typhosus* 84, *B. paratyphosus* A 18, *B. paratyphosus* B 5, *B. dysenteriae flexner* Y 2.

During the year, many sera giving a negative reaction with *B. typhosus* and *B. paratyphosus* A and B, were tested against *Br. melitensis* and *B. paratyphosus* C with no positive results.

The sera of one goat sent by the Veterinary Officer, agglutinated *Br. melitensis*.

## BLOOD FILMS.

345 films examined for malaria parasites gave 77 positive results in the following proportions :—

*P. falciparum* 44, with gametocytes present in 13, *P. vivax* 31 with gametocytes present in 5, *P. malariae* in 2.

Table IV shows the parasites found in different months. It is realized that these results do not give an adequate picture of the prevalence of malaria in Cyprus. Owing to change of staff at Nicosia Hospital, fewer films were sent from out-patients with malaria, and films are not sent from rural dispensaries. The table shows, however, the same preponderance of subtertian infections in the hot months, as was noted last year.

## BLOOD COUNTS.

84 blood counts were performed. The principal findings was an anæmia of secondary type in 20 cases. Many were of a severe type, the etiology of these cases of anæmia is not clear, they are said to follow malaria, but parasites, (*P. falciparum* gametocytes) were found in only one case. Others are associated with pregnancy in young women and especially in Moslem women.

## BLOOD GROUPING.

17 donors were tested against patients sera for hæmagglutination before blood transfusion. This direct method was used as group sera were not available.

Seven blood transfusions were carried out by the Surgical Specialist and the Bacteriologist during the year for the following conditions :—

*Purpura*.—In a patient with recurrent purpura and bleeding from the mucous membranes. The patient ultimately recovered after 4 transfusions.

*Blackwater Fever*.—This was the second case in which blood transfusion was carried out for this condition, once during the continuance of hæmolysis and, in this case immediately after it ceased for the severe anæmia. In both cases the immediate improvement in the patients was marked. They were both clinically severe cases, both recovered.

*Severe Anæmia and Pregnancy*.—In a patient with a positive Wassermann reaction. The blood count on admission to hospital was red cells 2,037,500 per c.m. and the patient was breathless and œdematous. On the day following the transfusion she was delivered spontaneously of a macerated foetus and ultimately recovered.

*Hæmorrhage from a Gun-shot Wound*.—The patient was admitted in a very collapsed condition, he rallied for a while after the transfusion, but died on the following day.

Citrated blood was used in all cases. There is often considerable difficulty in Cyprus in persuading relatives to be donors, and the prevalence of syphilis and malaria makes a careful blood examination of donors imperative.

## BIOCHEMICAL BLOOD EXAMINATIONS.

14 estimations of blood urea and 8 of blood sugar were carried out.



## PATHOLOGICAL FLUIDS, PUS, ETC.

26 specimens were examined, *B. anthracis* being found in 2, streptococci in 4, staphylococcus aureus in 2, and *B. tuberculosis* in 1. 47 cerebro spinal fluids showed the presence of *B. tuberculosis* in 2, pneumococci in 3, and streptococci in 1. Meningococci were not found during the year.

## URETHRAL AND CERVICAL SMEARS.

2,038 smears were examined from the Venereal Diseases Clinics and other sources, gonococci were found in 713. The results from the Venereal Diseases Clinics are shown in detail in table III. As noted in the Wassermann reactions, the total number is a little less, but the percentage of positive results, except for a decrease from Famagusta and Larnaca, remains much as last year. Limassol still shows the highest percentage of positive findings (66%).

## SPUTUM.

397 specimens examined showed the presence of *B. tuberculosis* in 143.

## PHARYNGEAL SWABS.

111 swabs were cultured from suspected cases of diphtheria. 22 were positive, streptococci were grown from 20. The diphtheria bacilli were morphologically typical, virulence tests were not carried out.

## FÆCES.

61 specimens of fæces were examined microscopically and by culture.

10 of these were cytologically probably bacillary dysentery without the casual organisms being isolated, from 8 others dysentery bacilli were isolated. In 3 cases *B. shiga*, and in 5, organisms of the Flexner group. *B. shiga* was isolated from the stools of two children in a village where an epidemic of dysentery of a severe type occurred in the Summer. *Entamoeba Histolytica* was found 3 times. Litmus Lactose agar plates were used to isolate colonies.

## URINES.

484 specimens of urine were examined. *B. tuberculosis* was found in 3 and *B. coli* in 2. Hæmoglobin or its derivatives were found in 2.

## HISTOLOGICAL EXAMINATIONS.

There was a considerable increase in the pathological work during the year, 153 specimens being received compared with 81 last year. The pathological findings are shown in detail in table II. Most of the specimens were tumours, malignant and non-malignant. A specimen of interest was of spontaneous rupture of the myocardium in a woman with syphilitic aortitis and obliterating endarteritis of the coronary arteries. 2 smears from splenic puncture examined for kala azar were negative, as was also the brain of a dog examined for suspected Rabies.

## EXAMINATION FOR LEPROSY.

221 nasal scrapings and skin clips were examined for *B. lepræ* which were found in 74 nasal scrapings and 73 skin clips. The periodic examinations of patients in the Leper Farm account for most of these findings.

## (2) POST-MORTEM EXAMINATIONS.

4 post-mortem examinations were performed by the Bacteriologist, the cause of death being as follows :—

Tuberculous meningitis, puerperal pyæmia, lobar pneumonia and a ruptured aortic aneurism. The aneurism was of the dissecting variety lying behind the descending thoracic and abdominal aorta in a woman with extensive syphilitic aortitis. Rupture occurred into the pleural cavity.

## (3) VACCINES.

8 autogenous vaccines and 160 c.c. of mixed T.A.B. vaccines were prepared in the Laboratory.



## (4) PUBLIC HEALTH INVESTIGATIONS.

## WATER SURVEY OF CYPRUS.

*Drinking Waters.*

A monthly examination of waters from different parts of the Island representative of the different types of supply available extending over a year was started in July in conjunction with the Government Analyst. The actual results obtained up to the end of 1931 are included in table VII. It is hoped to publish a paper correlating all the scientific data, nature of source, physical and chemical findings, meteorology, etc., with the bacteriological results, when the survey is completed.

55 specimens from other sources were also examined with the results shown in the table VII.

## RATS, AND RAT FLEAS.

The examination of rats from the ports for possible infection with *B. pestis* was started in April. 28 rats were examined, no evidence of infection was found.

The rats were caught by the Sanitary Inspectors, who examined them and sent smears from the spleen to the Laboratory for examination. The source of the rats is shown in table V.

The method of staining used was 1% of a saturated watery solution of methylene blue for  $\frac{1}{2}$  minute.

Fleas from 17 rats caught at Famagusta and Limassol, were collected for identification, with results shown in table VI.

The number of specimens examined is small, but show that the commonest rat flea found was *Xenopsylla Cheopis*, and the flea index at Famagusta was over 5 in July and August.

## DISINFECTANTS.

A sample of crude disinfectant was examined for suitability for sanitary purposes.

## (5) VARIOUS.

19 specimens were sent by the Veterinary Officers, 12 being tissues for histological examination, mainly in connection with an investigation into fowl paralysis.

The Veterinary Department now has its own laboratory staff.

TABLE I.

SOURCE OF SPECIMENS RECEIVED DURING 1931.

Senders	BLOOD.						PUS, EXUDATES, EXCRETA, ETC.						PATHOLOGICAL EXAMINATIONS				PUBLIC HEALTH EXAMINATIONS				VARIOUS		Totals					
	Films.	Counts	Culture	Weinberg	Wassermann	Agglutination	Biochemical	Grouping	Pus & exudates	C.S.F.	Urethral and cervical smears	Sputum	Scraping for leprosy	Pharyngeal swabs	Faeces	Urines	Tissue for Histological examination	Post-mortems	Spleen smears	Brain rabies	Drinking waters	Rats		Fleas	Disinfectant	Test meals	Vaccines	Culture for Examination
Director of Health..	17	1	1	—	—	7	—	—	1	—	—	—	172	15	—	—	1	1	—	—	—	31	1	1	1	—	—	250
Surgical Specialist..	58	39	3	13	8	21	3	8	6	3	—	20	—	3	7	82	88	2	—	—	—	—	—	—	—	—	—	367
Consulting Surgeon	3	1	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	8
Consulting Physician	19	6	1	—	1	—	—	—	1	—	—	3	—	7	4	29	—	—	—	—	—	—	—	—	—	—	—	75
V.D. Specialist ..	1	3	1	—	—	1	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	9
D.M.O., Nicosia ..	61	6	1	—	7	14	—	3	2	1	—	8	7	18	12	37	5	1	—	—	—	—	—	—	—	—	—	185
D.M.O., Limassol ..	40	10	—	—	29	16	4	—	5	9	4	59	2	31	—	8	32	—	1	—	—	—	—	—	—	—	—	253
D.M.O., Famagusta	6	—	—	—	—	3	—	—	1	—	1	25	—	4	1	2	—	—	—	—	—	—	—	—	—	—	—	43
D.M.O., Larnaca ..	—	—	—	—	—	2	—	—	1	3	—	26	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	33
D.M.O., Paphos ..	1	—	—	—	—	2	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Med. Officer, Troödos	9	—	—	—	—	1	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	12
Govt. Bacteriologist	13	7	—	—	1	4	—	4	2	—	—	1	—	1	2	3	—	—	—	—	—	—	—	—	—	—	—	38
Asst. D.M.O., N/sia.	26	2	—	—	—	14	3	—	1	3	2	11	39	3	3	105	—	1	—	—	5	—	—	—	—	—	—	213
Med. Officer, N/sia.	37	2	3	—	12	9	—	2	1	1	3	79	—	20	16	154	—	—	—	—	—	—	—	—	—	—	—	343
Med. Ofcr., Morphou	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
Med. Officer, L/kara	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
Med. Officer, Kilani	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
Med. Ofcr., Yialousa	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Med. Ofcr., Athienou	1*	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
Med. Officer, Lefka	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	5
Med. Officer, Agros	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	3
Med. Officer, Myrtou	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	3
Med. Ofcr., Pedoulas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Med. Ofcr., Trikomo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Med. Officer, K/nia.	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50
M.O., V.D. Clinics..	—	—	—	—	5,032	—	—	—	—	21	2	—	—	—	—	26	1	—	—	—	—	—	—	—	—	—	—	7,055
V.D. Clinics .. ..	—	—	—	—	—	—	—	—	—	—	2,023	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Travelling Oculist	—	—	—	—	1	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	115
Med. Ofcr., San/um.	—	—	—	—	—	—	—	—	—	—	—	115	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Med. Ofcr., Troops..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	284
Priv. Practitioners	—	7	3	1	14	87	12	—	2	5	1	44	1	6	10	34	2	—	—	1	—	—	—	—	—	—	—	13
Govt. Analyst ..	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—	—	—	3	—	—	—	—	—	—	19
Veterinary Officers	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	12	—	—	—	—	—	—	—	—	—	—	177
Sanitary Inspectors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals .. ..	345	84	14	14	5,107	200	22	17	26	47	2,038	397	221	111	61	484	153	4	2	1	207	28	17	1	1	8	2	9,612



TABLE II.

## EXAMINATIONS PERFORMED AND POSITIVE FINDINGS.

<i>Examinations</i>	<i>No.</i>	<i>Principal Positive Findings</i>	<i>No.</i>
<hr/>			
BLOOD.			
1. Films for parasites ..	345	P. falciparum .. ..	44
		Gametocytes present ..	13
		P. vivax .. ..	31
		Gametocytes present ..	5
		P. malariae .. ..	2
2. Counts .. ..	84	Secondary anæmia ..	20
		Neutrophil leucocytosis ..	11
		Lymphocytosis ..	1
		Anæmia with high C.I. ..	1
		Myeloid leukæmia ..	2
3. Culture .. ..	14	Streptococci .. ..	2
		Staphylococcus aureus ..	1
4. Biochemical .. ..	22	Estimation of urea ..	14
		Estimation of sugar ..	8
5. Serum reactions			
(a) Agglutination ..	200	B. typhosus .. ..	84
		B. paratyphosus A ..	18
		B. paratyphosus B ..	5
		B. flexner Y .. ..	2
		Br. Melitensis (Vet. specimen)	1
(b) Complement fixation			
Weinberg reaction ..	14	Positive .. ..	4
Wassermann reaction	5,107	Positive .. ..	954
		Weakly positive .. ..	308
6. Grouping .. ..	17		
PUS AND PATHOLOGICAL FLUIDS.			
1. Pus .. ..	16	Staphylococcus aureus ..	2
		Streptococci .. ..	4
		B. tuberculosis .. ..	1
		B. anthracis .. ..	2
2. Pleural effusions ..	5	Cells lymphocytes ..	3
		Purulent effusions ..	2
3. Peritoneal effusions ..	3		
4. Effusion from joint ..	1	Pus present .. ..	1
5. Hydatid fluid .. ..	1		
6. Cerebro-spinal-fluids ..	47	Excess of cells, lymphocytes	5
		Excess of cells, leucocytes ..	1
		Wassermann reaction positive	3
		B. tuberculosis present ..	2
		Pneumococci present ..	5
		Streptococci present ..	1
7. Urethral and cervical smears .. ..	2,038	Gonococci present .. ..	713
8. Sputum .. ..	397	B. tuberculosis present ..	143
9. Smears for leprosy ..	221	Lepra bacilli in nasal scrapings	74
		Lepra bacilli in skin clips ..	73
10. Pharyngeal swabs ..	111	Klebs Loeffler bacilli grown ..	22
		Streptococci .. ..	20
		M. catarrhalis .. ..	2
Faeces .. ..	61	Blood and pus present ..	10
		Organisms of flexner group isolated ..	5
		B. dysenteriae shiga isolated ..	3
		Entamoebæ histolytica:	
		Free forms .. ..	1
		Cysts .. ..	2
		Entamoebæ coli .. ..	2
		Giardia lamblia .. ..	1
		Ova of ascaris lumbricoides ..	1
<hr/>			
Carried forward ..	8,704	Carried forward ..	2,635

<i>Examinations</i>	<i>No.</i>	<i>Principal positive Findings</i>	<i>No.</i>
Brought forward	8,704		2,635
Urine	484	Albumen present	45
		Sugar present	37
		Bile present	2
		Acetone present	1
		Oxalates in deposit	18
		Uric acid in deposit	3
		Casts in deposit	1
		Pus in deposit	35
		Hæmoglobin	2
		Blood	12
		Estimation of chlorides	4
		Estimation of urea	4
		B. coli present	2
		B. tuberculosis present	3
		Staphylococcus aureus present	1

PATHOLOGICAL EXAMINATIONS.

1. Tissues for histological examination .. .. 153

1. MALIGNANT TUMOURS

(a) Carcinoma	
Cervix uteri	7
Corpus uteri	2
Malignant adenoma of uterus	1
Skin (basal celled)	3
Skin squamous celled	9
Breast	5
Stomach	1
Rectum	1
Bladder	1
Lymphatic gland (secondary)	2
Liver (primary)	1
(b) Sarcoma:	
Connective tissues	10
Mouth	1
Uterus	1
Melanotic	1
Mixed tumour parotid gland	1
Myeloma of bone	2

2. NON-MALIGNANT TUMOURS

Fibro-adenoma, breast	1
Fibro-myoma, uterus	3
Uterine polypus	1
Fibroma	2
Myxoema	1
Hæmangioma	2
Papilloma skin	1
Cyst of thyroid	1
Adenoma, thyroid	1
Cancellous osteoma	1

3. INFLAMMATIONS

Tuberculous	
Lymphatic gland	2
Bladder	1
Epididymis	2
Appendix	1
Syphilitic	
Gumma	1
Aortitis and rupture of heart	1
Purulent	11
Hodgkins lymphadenoma	2

4. PRODUCTS OF CONCEPTION

Chorionic carcinoma	2
---------------------	---



<i>Examinations</i>	<i>No.</i>	<i>Principal Positive Findings</i>	<i>No.</i>
Brought forward	9,341		2,891
PATHOLOGICAL EXAMINATIONS.			
TISSUES FOR HISTOLOGICAL EXAMINATION— <i>continued.</i>			
		5. VARIOUS	
		Hypertrophy of breast (male)	1
		Chronic interstitial mastitis	1
		Hydronephrosis .. ..	1
		Hydronephrosis (congenital)	1
		6. VETERINARY	
		Acute hæmorrhagic nephritis (horse) .. ..	1
		Acute hæmorrhagic nephritis (sheep) .. ..	2
2. Post Mortem examinations	4	T. B. meningitis .. ..	1
		Pyæmia, puerperal .. ..	1
		Ruptured aortic aneurism ..	1
		Lobar pneumonia .. ..	1
3. Spleen smears for Kala azar	2		
4. Brain of dog for rabies ..	1		
PUBLIC HEALTH SPECIMENS.			
Drinking water .. ..	207	<i>See Separate Table.</i>	
Rats for plague .. ..	28		
Fleas for identification ..	17	Xenopsylla cheopis .. ..	77
		Leptopsylla musculi .. ..	14
		Ctenocephalus felis .. ..	1
Disinfectant .. ..	1		
VARIOUS.			
Fractional test meal .. ..	1		
Autogenous vaccines .. ..	8	Staphylococcus aureus ..	5
		Mixed streptococci, staphyl. aureus and M catarrhalis ..	1
		B. coli .. ..	1
		Streptococci .. ..	1
Cultures for examination ..	2		
TOTAL .. ..	9,612	TOTAL .. ..	3,002

TABLE III.

## RESULTS FROM VENEREAL DISEASES CLINICS.

*Urethral and Cervical Smears.*

	<i>No. sent.</i>	<i>Positive</i>	<i>% positive.</i>
Nicosia .. ..	705	261	37
Larnaca .. ..	451	119	26
Limassol .. ..	231	153	66
Famagusta .. ..	340	117	34
Paphos .. ..	296	59	31
Total .. ..	2,023	709	35

*Wassermann Reactions.*

	<i>No. sent.</i>	<i>Positive</i>	<i>% positive</i>	<i>Doubtful</i>	<i>% doubtful</i>
Nicosia .. ..	1,825	342	19	110	6
Larnaca .. ..	941	182	19	65	7
Limassol .. ..	656	136	21	29	4
Famagusta .. ..	986	164	17	69	7
Paphos .. ..	624	114	18	35	5
Total .. ..	5,032	938	—	308	—

TABLE IV.  
MALARIA PARASITES FOUND IN DIFFERENT MONTHS.

January			February			March			April			May			June		
Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.
1	2	0	5	1	1	1	2	0	2	0	0	6	0	1	1	2	0
July			August			September			October			November			December		
Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pf.	Pm.	Pv.	Pm.	Pf.
2	3	0	5	4	0	1	4	0	4	15	0	2	6	0	0	5	0

TABLE V.

EXAMINATION OF RATS.

		<i>April</i>		<i>May</i>		<i>June</i>		<i>July</i>		<i>August</i>	
Limassol	..	..	0	..	2	..	8	..	2	..	2
Larnaca	..	..	0	..	0	..	1	..	0	..	0
Famagusta	..	..	1	..	3	..	1	..	0	..	1
Kyrenia	..	..	0	..	0	..	1	..	0	..	1
Total		..	1	..	5	..	11	..	2	..	4
			=		=		=		=		=
		<i>September</i>		<i>October</i>		<i>November</i>		<i>December</i>		<i>Total</i>	
Limassol	..	..	1	..	0	..	1	..	0	..	16
Larnaca	..	..	0	..	0	..	0	..	1	..	2
Famagusta	..	..	1	..	0	..	1	..	0	..	8
Kyrenia	..	..	0	..	0	..	0	..	0	..	2
Total		..	2	..	0	..	2	..	1	..	28
			=		=		=		=		=

TABLE VI.

EXAMINATION OF RAT FLEAS

*Limassol.*

Month	Xenopsylla Cheopis	Total	Leptopsylla Musculis	Total	Ctenocephalus Felis	Total	No. of Rats	Flea Index
May	1 f.	1	—	—	—	—	1	1
June	16 f. 14 m.	30	2 f. 3 m.	5	1	1	7	5.1
July	6 f. 8 m.	14	—	—	—	—	1	14
Aug.	9 f. 10 m.	19	—	—	—	—	2	9.5
Sept.	2 f. 3 m.	5	1 f.	1	—	—	1	5
Total	—	69	—	6	—	1	12	—

*Famagusta.*

April	—	—	1 m.	—	—	—	1	1
May	4 f. 3 m.	7	4 f. 4 m.	8	—	—	3	5
June	1 f.	1	—	—	—	—	1	1
Total	—	8	—	8	—	—	5	—



TABLE VII.

## WATER EXAMINATIONS DURING 1931.

<i>Name of Source</i>	<i>Month</i>	<i>No. of organisms developing on agar at 37°C. in 1 cc.</i>	<i>Typical B. coli</i>	<i>Atypical coliform organisms.</i>
Kannoures source Palækhori .. .. .	March	80	+ in 1cc.	—
Kridhia locality Yaghan .. .. .	March	165	+ in 5cc.	—
Mazakambos, Pendakomo spring .. .. .	April	20	—in 20cc.	—
Mesayitonia overflow, Ayios Dhimitrianos locality	April	120	+in 1cc.	—
Mazorka spring, Palæomylos .. .. .	April	35	—in 20cc.	—
Kato Vrysi Dimes spring .. .. .	April	30	+ in 10cc.	—
Pano Vrysi Dimes .. .. .	April	40	—in 20cc.	—
Kligi new spring, 1 mile from Yerasa .. .. .	April	340	—in 20cc.	+in 20cc.
Paphos reservoir .. .. .	April	50	+in 5cc.	—
Mr. Pastellides well .. .. .	April	790	+in 1cc.	—
Police station, Limassol .. .. .	April	20	+in 10cc.	—
Limnati, Ayios Mammias .. .. .	May	180	+in 1cc.	—
Lakkos tou Costi, well pipe in school garden .. .. .	May	1,010	+in 1cc.	—
Orta Couyou, Photta .. .. .	June	250	+in 1cc.	—
Tatli Couyou, Photta .. .. .	June	1,950	+in 1cc.	—
SpiliaVrisi .. .. .	June	100	+in 1cc.	—
Pikardou piped supply .. .. .	June	20	+in 1cc.	—
Pikardou wells at Appides.. .. .	June	125	+in 1cc.	—
Pendakomo village .. .. .	June	130	+in 1cc.	—
Apaesia Mersinaki .. .. .	July	80	+in 5cc.	—
Phota village, Ak. Pounar .. .. .	July	70	+in 5cc.	—
Well in Pedias river, Mia Milea .. .. .	July	370	+in 1cc.	—
Ayios Mammias spring Fraktes .. .. .	August	3,320	+in 0.1cc.	—
Troödos .. .. .	August	10	+in 20cc.	—
Troödos, Tap 1 .. .. .	August	10	+in 10cc.	—
Troödos, Tap 2 .. .. .	August	20	—in 20cc.	+in 20cc.
Troödos, Tap 3 .. .. .	August	80	+in 20cc.	—
Troödos, Tap 4 .. .. .	August	80	—in 20cc.	+in 5cc.
Machæra, Arkadjidou .. .. .	August	160	+in 0.1cc.	—
Aqueduct by Ayios Memnon, Famagusta .. .. .	August	145	+in 0.1cc.	—
Potamiou spring, Argaki tis Vrisis .. .. .	September	6,200	+in 0.1cc.	—
Mesana village .. .. .	September	10	—in 20cc.	—
Pighi, Lefkara .. .. .	September	900	+in 1cc.	—
Aqueduct near Ayios Memnon, Famagusta .. .. .	September	170	+in 0.1cc.	—
Wells at Lefkara .. .. .	September	1,080	+in 0.1cc.	—
Church fountain, Lefkara .. .. .	September	440	+in 5cc.	—
Ayios Trikhonas well Vouppous .. .. .	September	180	+in 0.1cc.	—
Parsonage house, Nicosia .. .. .	October	80	—in 20cc.	—
Vrysi Modihos, Kyrenia .. .. .	October	150	—	+in 0.1cc.
Pilleri village, Kyrenia .. .. .	October	220	—	+in 0.1cc.
Kyparissi spring, Pyrgos .. .. .	October	290	+in 0.1cc.	—
Stream Athiænou .. .. .	October	50	+in 0.1cc.	—
K. Michaelis well, Athiænou .. .. .	October	130	+in 0.1cc.	—
Haji Marios well, Athiænou .. .. .	October	340	+in 0.1cc.	—
P. Paras well, Athiænou .. .. .	October	180	+in 0.1cc.	—
Well near Armenian cemetery .. .. .	October	80	—in 20cc.	+in 1cc.
Deposit tank of C. Mamas .. .. .	October	730	—in 20cc.	+in 0.1cc
Deposit tank of Th. Ouranios .. .. .	October	150	+in 0.1cc.	—
Deposit tank of Pambakian .. .. .	October	110	—in 20cc.	+in 1cc.
Mintselli, Orta Keuy .. .. .	November	110	+in 0.1cc.	—
Army Camp's kitchen .. .. .	November	30	—in 20cc.	+in 1cc.
Spring Lakki locality .. .. .	November	300	—	+in 0.1cc.
Aphantia .. .. .	November	340	—	+in 0.1cc.
Syrianokhori Artesian well .. .. .	December	10	—in 20cc.	—
Syrianokhori Artesian well .. .. .	December	40	—in 20cc.	—
Mr. Televantos house .. .. .	December	30	—	+in 10cc.
Syrianokhori well with pump .. .. .	August	50	+in 5cc.	—
	September	180	+in 0.1cc.	—
	September	420	+in 0.1cc.	—
	October	3,240	+in 0.1cc.	—
	November	30	—	+in 1cc.
	December	90	+in 1cc.	—
Kythræa, Kefalovrisos spring .. .. .	September	500	—in 20cc.	—
	October	60	—in 20cc.	—
	November	170	—in 20cc.	—
	December	40	—	+in 5cc.

Name of Source						Month	No. of organisms developing on agar at 37°C. in 1cc.	Typical B. coli	Atypical coliform organisms
—						—	—	—	—
Larnaca. Pasha Chiftlick aqueduct, Kouppi main deposit	..	..	..	..	..	July	50	—	+in 1cc.
						August	200	+in 1cc.	—
						September	120	+in 0.1cc.	—
						October	20	—	+in 0.1cc.
						November	20	—	+in 0.1cc.
						November	120	+in 0.1cc.	—
						December	80	+in 1cc.	—
Lefkara. Ayios Andronikos fountain	..	..	..	..	..	September	150	+in 5cc.	—
						October	40	—	+in 10cc.
						November	120	—	+in 5cc.
						December	50	—	+in 0.1cc.
Famagusta wells	..	..	..	..	..	August	390	+in 0.1cc.	—
						September	540	+in 1cc.	—
						October	70	—	+in 0.1cc.
						November	210	+in 0.1cc.	—
						November	60	—	+in 5cc.
						December	110	—	+in 0.1cc.
Varosha Artesian well	..	..	..	..	..	August	75	+in 1cc.	—
						September	30	+in 5cc.	—
						October	80	—	+in 0.1cc.
						November	100	—	+in 1cc.
						November	60	—	+in 5cc.
						December	80	—	+in 1cc.
Nicosia, Silictar supply	..	..	..	..	..	August	100	+in 1cc.	—
						August	130	+in 0.1cc.	—
						September	150	+in 0.1cc.	—
						October	30	+in 0.1cc.	—
						November	290	+in 0.1cc.	—
						December	210	+in 0.1cc.	—
Nicosia, Strovilo supply	..	..	..	..	..	August	330	+in 1cc.	—
						August	850	+in 0.1cc.	—
						September	80	+in 0.1cc.	—
						October	600	+in 0.1cc.	—
						November	210	+in 0.1cc.	—
						December	110	—	+in 1cc.
Nicosia, Anemomylos supply	..	..	..	..	..	August	40	—	+in 1cc.
						August	60	+in 1cc.	—
						September	80	—	+in 1cc.
						October	270	—	+in 0.1cc.
						November	50	+in 0.1cc.	—
						December	970	+in 1cc.	—
Nicosia, Ayia Paraskevi Source	..	..	..	..	..	August	10	—in 20cc.	—
						August	20	—in 20cc.	—
						September	20	—in 20cc.	—
						October	10	—in 20cc.	—
						November	20	—in 20cc.	—
						December	3,650	—	+in 0.1cc. contaminated in sampling.
Morphou supply	..	..	..	..	..	June	180	+in 10cc.	—
						August	10	—in 20cc.	—
						September	20	+in 1cc.	—
						September	20	—in 20cc.	—
						October	50	—	+in 1cc.
						November	20	—in 20cc.	—
						December	50	+in 10cc.	—
Lefkoniko	..	..	..	..	..	September	—	+in 5cc.	—
						October	90	+in 1cc.	—
						November	320	+in 1cc.	—
						December	900	—	+in 5cc.
						December	100	—	+in 1cc.
Akanthou	..	..	..	..	..	September	80	—	+in 5cc.
						October	90	+in 10cc.	—
						November	60	—	+in 10cc.
						December	10	—in 20cc.	—
						December	30	—	+in 10cc.



Name of Source —						Month —	No. of orga- nisms deve- loping on agar at 37°C. in 1cc. —	Typical B. coli —	Atypical coliform organisms —
Leonarisso .. .. .						July	540	+in 1cc.	—
						November	520	—in 20cc.	—
						December	20	—in 20cc.	—
						December	50	—	+in 10cc.
Limassol pumping station .. .. .						April	45	+in 10cc.	—
						July	20	—	+in 5cc.
						August	30	+in 5cc.	—
						September	30	+in 5cc.	—
						October	60	+in 20cc.	—
						November	50	—in 20cc.	—
						December	70	+in 5cc.	—
Limassol, Polemidia camp .. .. .						April	5,000	—	+in 10cc.
						August	20	+in 20cc.	—
						September	30	—	+in 5cc.
						October	30	+in 10cc.	—
						November	260	—	+in 5cc.
						December	40	+in 20cc.	—
Paphos Police Station .. .. .						April	100	+in 10cc.	—
						October	330	+in 5cc.	—
						November	190	—in 20cc.	—
						December	40	—	+in 5cc.
Platræs, main deposit .. .. .						September	10	—in 20cc.	—
						October	30	—in 20cc.	—
						November	10	—in 20cc.	—
						Dec.	nil in 0.1cc.	—in 20cc.	—
Prodromos, Hardji locality .. .. .						April	10	—in 20cc.	—
						September	10	—in 20cc.	—
						October	30	—in 20cc.	—
						December	60	—in 20cc.	—
Omodhos, main deposit .. .. .						September	40	—in 1cc.	—
						October	3,000	+in 0.1cc.	—
						November	20	+in 5cc.	—
						December	110	+in 10cc.	—
						December	600	—	+in 1cc.
Kyrenia, Boghaz source .. .. .						July	10	—in 20cc.	—
						August	30	—in 20cc.	—
						September	20	—in 20cc.	—
						October	40	—in 20cc.	—
						November	10	—in 20cc.	—
						December	20	—in 20cc.	—
Lapithos, Kefalovrisos source .. .. .						July	300	—	+in 1cc.
						July	20	—in 20cc.	—
						August	40	—	+in 1cc.
						September	20	+in 10cc.	—
						October	30	—in 20cc.	—
						November	30	—in 20cc.	—
						December	1,200	—in 20cc.	—
Evrykhou .. .. .						July	20	—in 20cc.	—
						September	300	—	+in 0.1cc.
						October	270	—in 1cc.	—
						November	10	—in 20cc.	—
						December	20	—in 20cc.	—
Myrtou .. .. .						July	70	+in 5cc.	—
						August	70	+in 0.1cc.	—
						September	70	+in 1cc.	—
						October	70	—in 20cc.	—
						November	10	—	+in 5cc.
						December	180	—	+in 1cc.
Agros, Kavouros source .. .. .						August	40	+in 0.1cc.	—
						September	30	—in 20cc.	+in 5cc.
						October	10	—in 20cc.	—
						November	20	—in 20cc.	—
						December	50	—	+in 10cc.

APPENDIX D.**ANNUAL REPORT OF THE GOVERNMENT ANALYST  
FOR THE YEAR 1931.**BY DR. S. G. WILLIMOTT, *Government Analyst*.

The year 1931 was a difficult one for many reasons but in spite of this it is satisfactory to be able to report that the activities and progress previously recorded were well sustained during the year. The task of re-organization was completed and the Laboratory reached its full working capacity.

The staff during 1931 was as follows :—

Government Analyst.

Assistant Analyst.

Laboratory Assistant (temporary).

Laboratory Attendant (part-time).

Laboratory Clerk (part-time).

The Government Analyst was on leave from July 23 to November 22, during which time Mr. L. C. Haralambides took over duty as Acting Government Analyst. Mr. G. P. Kalavas, who acted as Laboratory Assistant, was engaged principally for extra work involved by the inception of the Water Survey Scheme. The services of the Laboratory Attendant and Clerk, because of financial stringency, have still to be shared with the Bacteriological Laboratory.

The work of the Government Laboratory for 1931 may be conveniently considered under three main headings :—

Part I.—Official routine work.

Part II.—Research.

Part III.—Summary on the re-organization of the Laboratory.

**PART I.—OFFICIAL WORK.**

The total number of analyses carried out was 1,812 as compared with 1,546 in 1930, representing an increase of over 17% in the general analytical work of the Laboratory. The number of samples examined, however, represents part only of the activities of the Laboratory since a considerable amount of lecturing and research is now undertaken. The increases were made up chiefly from food and drugs, waters and commercial samples. The total number of analyses made during 1931 compared with that of the previous decade is shown in Table I.

TABLE I.

**TOTAL ANALYSES MADE DURING THE LAST DECADE.**

Year.				Total.
1921	..	..	..	1,269
1922	..	..	..	1,448
1923	..	..	..	1,814
1924	..	..	..	2,195
1925	..	..	..	1,834
1926	..	..	..	1,999
1927	..	..	..	1,850
1928	..	..	..	4,805*
1929	..	..	..	1,713*
1930	..	..	..	1,546
1931	..	..	..	1,812

\* Includes Pathological specimens.

The total for 1931 may be divided into official and non-official samples and classified under the different headings shown in Tables II. and III.

TABLE II.

*Official Samples (1931).*

Food and Drugs	..	..	778
Criminal	..	..	449
Waters	..	..	262
Customs and Excise	..		22
Miscellaneous	..	..	66
Research	..	..	154
Veterinary	..	..	11
Biochemical	..	..	7
Total..	..	..	1,749



TABLE III.

*Non-official Sampls (1931).*

Animal Viscera	..	..	20
Food-stuffs	..	..	20
Galvanized Sheets	..	..	5
Paper	..	..	5
Waters	..	..	5
Leather	..	..	2
Limestone	..	..	1
Miscellaneous	..	..	7
Total			63
Grand Total			1,812

The samples falling under different headings are considered in some detail in the following sections :—

## SECTION I.—FOOD AND DRUGS.

In Table VI are summarized data showing the number of each kind of food-stuff or drug examined and the proportion of samples adulterated.

TABLE IV.—FOOD AND DRUGS ANALYZED  
With Per Cent. Adulteration.

Sample				Number	Adulterated	Per cent. Adulterated
Flour	..	..	..	55	nil	nil
Bread	..	..	..	17	nil	nil
Biscuits	..	..	..	3	nil	nil
Rice..	..	..	..	1	nil	nil
Coffee	..	..	..	237	58	20.2
Tea	..	..	..	8	nil	nil
Milk..	..	..	..	83	14	16.8
Condensed Milk	..	..	..	18	1	5.5
Olive Oil	..	..	..	34	nil	nil
Sesame Oil	..	..	..	14	nil	nil
Butter	..	..	..	12	nil	nil
Cocolina	..	..	..	10	nil	nil
Margarine	..	..	..	3	nil	nil
Salt ..	..	..	..	39	1	2.5
Pepper	..	..	..	15	nil	nil
Mustard	..	..	..	2	nil	nil
Tomato Paste	..	..	..	22	2	9.1
Sugar	..	..	..	34	nil	nil
Syrup	..	..	..	1	nil	nil
Sweets	..	..	..	3	1	33.3
Cheese	..	..	..	30	1	3.3
Sardines	..	..	..	63	5	7.9
Herrings	..	..	..	30	5	16.6
Mineral Water	..	..	..	23	nil	nil
Lemonade	..	..	..	1	nil	nil
Vichy Water	..	..	..	1	nil	nil
Peppermint	..	..	..	3	nil	nil
Aspirin	..	..	..	1	nil	nil
Quinine	..	..	..	15	nil	nil
Total	..	..	..	778	88	11.3

The total of 778 official samples represents an increase of 78 samples as compared with that of the previous year and there was an increase in the adulteration rate from 7.7 in 1930 to 11.3 in 1931. The number of prosecutions under the Food and Drugs Law was 65 and the fines inflicted amounted to £41 10s. The food-stuffs found to be adulterated were principally coffee and milk and the districts in which adulteration appeared to be most extensive, Nicosia and Larnaca. Some form of starch was used for the adulteration of the coffee while the milk was either skimmed or watered. It appears that lye-water, prepared from wood ashes, is frequently employed as an adulterant in place of water, the idea being that the specific gravity of the milk is not thereby affected. The sample of cheese contained starch and the sweets an excessive quantity of eosin as colouring matter. The remaining samples, consisting of tinned foods, were returned as "unfit for human food." The sample of condensed milk had developed gas and the contents spurted out on opening; the milk was brown in colour and more viscous than sound condensed milk. The tins of sardines and herrings were all blown and frequently the tinned surface was badly corroded and stained. There is no doubt that considerable stocks of unsound tinned goods exist in the towns and villages and so long as it remains in a shop it constitutes a public menace.

The analytical results of milk analysis complete the data on the Food Survey of Cyprus commenced in July, 1930. When these figures are combined the general adulteration rate is seen to be 9.4%.

		<i>Total</i>		<i>Adulterated</i>	
		—		—	
1930	Food Survey..	610	..	51	
1931	Milk ..	83	..	14	
	Total ..	693	..	65	

Hence a figure of not much less than 10% can be regarded as the best approximation to the actual adulteration prevailing in Cyprus.

During the year under review the duty of taking official samples under the Food and Drugs Law passed from the Police to the Sanitary Inspectors of the Department of Health. At the School for Sanitary Inspectors, held in Nicosia at the beginning of the year, special instruction was given in the most effective measures for the sampling of food and drugs. Allowing for the fact that the Inspectors had no previous experience of the work and that much still remains to be done, the new system can be regarded as having worked satisfactorily and it has been possible to exercise much greater control over the work than hitherto. But it must be admitted that the Inspectors encountered many difficulties, seen and unforeseen, during their first year of duty. In order to discover how far these difficulties were real, the Government Analyst with the Chief Sanitary Inspector made careful investigation of the conditions actually obtaining in Nicosia, Morphou, Larnaca, Lefkara and Kyrenia. It was found that they could be regarded as arising from two main sources, viz:—the determination to enforce the provisions of the Law in regard to food supplies, and secondly, the vagueness of the present Law when cases of adulteration come before the Courts.

Arising out of these circumstances many shop-keepers, presumably on legal advice, have adopted the sharp practice of labelling any or every food-stuff as "adulterated," whether or not the commodity was genuine, in the belief that by so doing the vendor rendered himself immune from Court action. It is difficult to discover sanction in the Law for practices of this nature, although, from certain decisions given in the Courts, it would appear that they are allowable. If indeed this be so, it is not surprising to find the whole object of the Law being systematically evaded especially when the Inspectors are active in the discharge of their duties.

It is possible that a better state of affairs might be brought about in several ways. First, by giving Sanitary Inspectors charge over cases of adulteration in the Courts in the same way as Forest Officers take care of Forest cases in Court. These officers who, as already stated, have had the benefit of special training, are probably in the best position to state the case for the prosecution. Secondly, definite regulations controlling the activities of all food industries



and trades should be drawn up and brought into force. The condition of factories and shops generally might thereby be greatly improved in the interests of public health and to the benefit of the community generally. One example perhaps will suffice in illustration. One custom of Cypriot shopkeepers is to keep supplies of human and animal food-stuffs, such as sugar, flour, rice barley, etc., in sacks on the floor. Not only is this practice hygienically bad but there can be no doubt that it constitutes a potent factor in encouraging the multiplication of the hordes of rats which yearly take a sad toll of the agricultural produce of the Island. Thirdly, the time would seem to have arrived when a revision of the present Food and Drugs Law might be undertaken with knowledge of local conditions and in the light of our recent experience.

In Table V. are summarized data showing the number of samples analyzed during the last decade and the percentage adulteration found.

TABLE V.—ADULTERATION DURING THE LAST DECADE.

Half-Year			No.	Adulterated	Per cent Adulterated
Ended	30th Sept., 1922	..	288	33	11.4
„	31st Dec., 1922	..	287	32	11.1
„	30th June, 1923	..	263	5	1.9
„	31st Dec., 1923	..	374	8	2.1
„	30th June, 1924	..	344	7	2.0
„	31st Dec., 1924	..	288	3	1.0
„	30th June, 1925	..	263	2	0.7
„	31st Dec., 1925	..	328	2	0.6
„	30th June, 1926	..	189	4	2.1
„	31st Dec., 1926	..	334	5	1.5
„	30th June, 1927	..	190	6	3.2
„	31st Dec., 1927	..	206	22	10.6
„	30th June, 1928	..	318	21	6.6
„	31st Dec., 1928	..	538	54	10.0
„	30th June, 1929	..	250	24	9.6
„	31st Dec., 1929	..	219	25	11.4
„	30th June, 1930	..	90	3	3.3
„	31st Dec., 1930	..	610	51	8.3
„	30th June, 1931	..	225	36	16.0
„	31st Dec., 1931	..	553	52	9.4

#### SECTION 2.—CRIMINAL.

Altogether some 449 exhibits were examined in connection with 134 criminal cases which are classified in Table VI. :—

TABLE VI.—*Criminal Exhibits.*

Exhibits in	murder and stabbing cases	..	..	..	228
„	„ rape and sodomy cases	..	..	..	87
„	„ poisoning cases and poisons seized from unauthorized persons	..	..	..	36
„	„ robbery cases	..	..	..	4
„	„ suicide cases	..	..	..	33
„	„ dangerous drugs	..	..	..	1
„	„ bestiality	..	..	..	1
„	„ counterfeit coins	..	..	..	59
Total		..	..	..	449



These data show a satisfactory decline both in cases and exhibits over the corresponding figures for 1930. Nevertheless the year was a bad one for violent crime which cannot be explained by the disturbances of last October. As in previous years the great majority of cases arose in connection with offences against the person but there were notable decreases in exhibits arising in cases of poisoning, abortion and dangerous drugs. There was an increase in suicide cases, one of which was caused by carbolic acid poisoning. No less than 10 murder cases were investigated, a number which does not represent the total capital crimes occurring during the year. But in spite of these grim facts the Cypriot criminal is more usually a simple ignorant person rather than a monster of iniquity. Usually the motives which lead a man to murder in Cyprus are trivial in themselves and are associated either with women, water or land.

The number of coins examined was again considerable, those found to be counterfeit consisting of three types. The workmanship displayed a high degree of skill in many cases with the exception of the milling which was nearly always irregular. The data are summarized in Table VII. :—

TABLE VII.—COMPOSITION OF COINS.

Genuine	..	..	27
Silver and Copper	..	..	25
Silver and Silica	..	..	1
Lead and tin	..	..	6
			—
Total	..	..	59
			—

Expert evidence was given altogether on 32 occasions on the findings of certain of these criminal cases in the magisterial, coroner's, district and assize courts of the Island.

It is to be regretted that no alteration in the present Police system of sending in exhibits to the Laboratory for examination has yet been effected. Endeavour has constantly been made to encourage the Police to make intelligent use of the Laboratory facilities, but so far it must be confessed, with little success. e/

### SECTION 3.—WATER SURVEY OF CYPRUS.

The chief interest of this section is to record the first results of the comprehensive Water Survey of Cyprus foreshadowed in last year's Report and actually commenced in July, 1931. The survey was preceded by careful investigation as to choice of sources, dates and frequency of sampling, transport, and extra laboratory facilities. The waters chosen for the survey, which is to continue over one year, were drawn from both mountain ranges, town and village, sea-coast and plain, so as to be as representative as possible of the water sources of the Island. To satisfy these desiderata it was found necessary to analyse at least 33 samples each month. The Bacteriologist kindly consented to be responsible for the bacteriological examinations. The samples were for the most part collected by the Sanitary Inspectors and it is satisfactory to be able to report a great improvement in the taking of water samples generally. The chemical data obtained so far comprise something like 5,000 estimations. It was intended to condense these results in a table but unfortunately limitations of space did not allow of this being done. The results indicate already that there are in Cyprus drinking waters which are excellent, many which are indifferent, and others which are thoroughly bad. From the completed data it is hoped to obtain the necessary information for drafting official water standards for Cyprus as well as indications as to the directions in which additional supplies of potable water may be reasonably sought for. On completion of the survey in 1932 the complete data, physical, chemical, bacteriological, geological, etc., will be published as a scientific paper.

Some 17 other water samples were analysed from different villages in the six districts, eight of which were found unfit for drinking purposes.



## SECTION 4.—CUSTOMS AND EXCISE.

Under this section 22 samples, consisting of a variety of food-stuffs and raw materials, were examined. The difficulties which became acute in 1930, in connection with the differentiation of petroleum samples, have been satisfactorily cleared up and the alternative suggestion made by the Analyst has now been passed into Law, *i.e.*, customs duty is remitted altogether on petroleum products other than kerosine and benzine.

## SECTION 5.—ANIMAL VISCERA.

Twenty viscera, most of which originated from Paphos District, were taken from the different farm animals of Cyprus. On analysis five were found to contain white arsenic. Not for some years has there been as many cases of poisoning of animals. Arsenic has been used in the past for locust destruction and it appears that a certain amount is still in the hands of villagers and thus easily available when any poisoning is to be done. In cases where poison is not found, death is often due to Anthrax.

## SECTION 6.—SCIENTIFIC EDUCATION.

The Government course in chemistry commenced in February and extended over four months, and altogether about 150 lectures and demonstrations were given. The revised syllabus of 1930 was followed and lectures were given once or twice every day. A test paper was set at the end of each month and an oral examination was included in the finals. Nineteen students attended the course of whom twelve passed the final examination and were awarded the Government Certificate.

Through the generosity of Dr. S. G. Papadopoulos, Consulting Surgeon to the Nicosia General Hospital, a book prize is now awarded annually to the best student of the year. The Papadopoulos Prize, which was keenly contested, was awarded to Mr. C. Eleftheriades for 1931.

The year has been an onerous one for the Laboratory both for lectures and examinations. A second course of 50 lectures was delivered from January to March to the new School for Sanitary Inspectors initiated by the Director of Health. A grounding was given in elementary physics and chemistry and the course included subjects of special sanitary importance such as air and water, food and water sampling, disinfection, and meteorology. Test papers were set periodically, as well as the chemical section of the papers in the final examinations of the Royal Sanitary Institute, London.

Two public lectures were delivered during the year, one on "The Salt Industry of Larnaca," the other on "The Nutrition of the School Child."

The Government Analyst also acted as examiner on the Board of Examiners in Pharmacy in the practical and written work of the examinations for the Government Certificate in Pharmacy. The Analyst also acted as examiner in scientific subjects in the examinations held in July for the award of three Government Scholarships tenable at the English Universities.

## SECTION 7.—OTHER DUTIES.

The Government Analyst acted as President of the following Boards of Survey :—

- (a) Agricultural Stores.
- (b) Veterinary Stores.
- (c) Cash, Forest Department.

The amount of official correspondence and advisory work shows constant increase.

The following official reports were prepared and submitted to Government :—

- (a) Annual Report of the Government Analyst for 1930.
- (b) Food and Drugs Report for the half-year ended 31st December, 1930.
- (c) Food and Drugs Report for the half-year ended 30th June, 1931.
- (d) Report on the Purification of Larnaca Salt.
- (e) Report on the Utilization of the Carob Bean.
- (f) Note on the Colouring Matters in Cyprus Wines.

A close touch has been established and maintained with the Agricultural Department, for which two of the above reports were written.



## SECTION 8.—MISCELLANEOUS.

A number of miscellaneous investigations of interest were carried out for different authorities. Two investigations of public health interest were undertaken on behalf of the Director of Health. A sample of disinfectant was examined and reported on, and recommended for purposes of rough disinfection using soft water for making up the solution. In the second case, the effluent waters of a Larnaca soap factory were examined and the recommendation made that these effluents might be passed into the town drainage system and so disposed of in the sea, a solution which has since been adopted.

A number of antiquities, such as statues, cements, stones, bronzes, coins, etc., were examined on behalf of the Nicosia Museum and the Swedish Archaeological Expedition.

Several waters from the Kalavassos workings were analysed for their iron content and acidity. An investigation of Kyrenia limestone was also carried out for Italian interests with a view to exploring the possibilities of Cyprus as a centre for the manufacture of cement, an industry for which the Island possesses the necessary raw material and would thus appear to be well adapted.

## SECTION 9.—REVENUE AND EXPENDITURE.

Additions to revenue were made from the following sources :—

*Revenue.*

	£	s.	cp.
Government Analyst's Fees .. .. .	60	10	3
Lecture Fees .. .. .	19	0	0
Fines inflicted under the Food and Drugs Law, 1926 .. .. .	41	10	0
Total .. .. .	121	0	3

*Expenditure.*

	£	s.	cp.
Chemical and Apparatus .. .. .	227	0	8
Lighting and Heating, etc. .. .. .	11	9	4
Cleaner .. .. .	2	15	0
Total .. .. .	241	5	3

## SECTION 10.—VALUE OF WORK PERFORMED.

According to the scale of fees, as laid down by Government, the routine work of the year performed on behalf of the different Departments has the values shown in Table VIII.

TABLE VIII.—*Value of Work Performed.*

<i>Category</i>	<i>Amount</i>
	£ s. cp.
Food and Drugs .. .. .	813 18 0
Criminal Cases and Evidence .. .. .	476 14 0
Counterfeit Coins .. .. .	123 18 0
Water .. .. .	275 2 0
Customs and Excise .. .. .	23 2 0
Miscellaneous .. .. .	134 6 0
Private Work .. .. .	60 10 3
Veterinary .. .. .	11 11 0
Biochemical .. .. .	7 7 0
Lecture Fees .. .. .	19 0 0
Total .. .. .	1,945 8 3

These figures take no account of research and advisory work carried out during the year.

It is a pleasant duty to record my appreciation of the efficiency of the small staff throughout a busy and difficult year and to my assistant, Mr. L. C. Haralambides, acknowledgment is again specially due.



## PART II.—RESEARCH.

Given additional staff this is a branch of activity capable of great development, the benefit of which it is difficult to estimate. Several investigations noted below were completed during the year.

## CYPRUS ORANGES.

Oranges are one of the most promising products of Cyprus for the cultivation of which the Island is naturally well suited. Cyprus oranges are now being exported to Europe in quantity but no investigation as to their nutritive value has been attempted. It appeared worth while, therefore, to obtain scientific data as to their food value by chemical and biological methods. Accordingly, an investigation was commenced in conjunction with Mr. C. Myrianthis, M.A., B.Sc.

In Cyprus, oranges are cultivated in three principal localities:—in the East, on the sandy soils of the coastal strip at Famagusta; in the West, on the loams of Lefka and Morphou. All three localities are well supplied with water. The annual production is estimated to be approximately as follows:—

Famagusta	..	..	..	..	..	20 millions.
Lefka	..	..	..	..	..	10 millions.
Morphou	..	..	..	..	..	5 millions.

Complete chemical analyses were made on representative samples of oranges from all three localities. The content of antiscorbutic vitamin was next determined by a series of feeding experiments on guinea pigs using the curative technique. Owing to lack of facilities, it was not possible to apply Höjer's admirable method in a parallel experiment. The guinea-pigs were bred in Cyprus from original Athens stock and suitable cages were constructed locally for the experiments. By feeding graduated doses of filtered orange juice to different groups it was concluded that a dose of 1.5cc. per head per day was ample to protect and cure the guinea-pigs from scurvy. Positive and negative controls were made at the same time and the experiment continued over a period of three months. From these results it is seen that Cyprus oranges compare favourably with those from better known countries.

## LARNACA SALT.

The purified salt, prepared in 1930, was tested out on the market at the price of 6cp. per oke, or about 2d. per lb. The salt was tried domestically in place of imported table salt, in cheese making on a large scale, and in the Hospital and Dispensary, Nicosia, generally for clinical work. In all cases the purified salt gave satisfactory results when used in place of imported pure salt. The chief difficulty was the price which was generally thought to be too high. (Crude Larnaca salt was at that time selling at 4cp. per oke). Thus the position was that, while the purified product had given satisfactory results wherever it had been employed, the high price was a real difficulty in the way of its economic development.

In order to overcome this it was suggested, in a report to Government, that use should be made of the heating effect of the sun's rays in the evaporation of the filtered solutions and employing a battery of shallow salterns exposed to wind and sun. A process along these lines has been successfully operated for a number of years at Athlith, Palestine, where an excellent salt has been produced in sufficient quantity to supply practically the needs of the whole country. It was recommended that, with suitable modification to suit local conditions, there is no reason why this solar system should not be equally successful if applied at Larnaca Salt Lake. There can be no doubt that the development of the salt industry in Cyprus offers considerable possibilities.

## QUININE POISONING.

A fatal case of quinine poisoning at Amiandos was investigated. Although widely used cases of poisoning by quinine, by accident or design, appear to be fortunately rare. For example, authorities such as Taylor and Glaister have no recorded cases. In the present case, a girl aged five, swallowed 25 five grain tablets of sugar-coated quinine in the belief that they were sweets. Vomiting and purging soon came on, followed by cyanosis and collapse, death terminating the scene three hours after ingestion. Post-mortem examination was made by Dr. Christodoulides and on analysis of the viscera, quinine was found in the stomach and traces in the liver. A paper, embodying the results of this investigation, was published in the *Lancet* of November 21, 1931.



### PIGMENTS OF THE POLLEN OF CERTAIN LILIES.

It has been found that the pollen and anthers of certain lilies yield a pigment, on suitable extraction, which can act as a sensitive indicator with acid and alkali. The colour in dilute acids is a pink-red and in dilute alkalis a bright green, the end-point being remarkably sharp. The indicator is not destroyed since the colour is at once restored by adding acid or alkali after neutralization. In titration work these indicators were found to give the same results as methyl red or litmus. Further investigation showed that this appeared to be a property of all the family.

It was also shown that the best method of extraction is one of simple maceration of the anthers at room temperature. When extraction of the indicator pigment is attempted in 90% alcohol, as recommended by previous observers, a number of other pigments are extracted at the same time thus giving a heterogenous solution. The confusing pigments have been investigated and found to consist of a considerable amount of carotin, a little xanthophyll and another unknown pigment. The indicator pigment was also found to be present in the flowers, from which it was isolated and proved to be an anthocyanin. The investigation is being continued.

### SOIL SURVEY OF CYPRUS.

In April, the Colony was visited by Dr. A. Reifenberg of the Hebrew University, Jerusalem, who came to carry out a scientific survey of the soils, and particularly the red soils, of Cyprus. In conjunction with the Agricultural Analyst water, soil, and agricultural data were supplied to Dr. Reifenberg as well as local information relevant to his survey. Some 75 representative analyses were given for the purposes of this investigation. Many soil samples were taken by Dr. Reifenberg and the material is being worked up in Jerusalem for publication in 1932.

### PART III.—REORGANIZATION OF THE GOVERNMENT LABORATORY.

The condition of the Government Laboratory in 1929 was one of chaos and disorganization. Apart from the fact that the building is structurally unsuited for a laboratory, the furnishing and equipment were quite out of touch with the requirements of a modern scientific laboratory. It was realized, therefore, at the outset that reconstruction and reorganization of a drastic nature were essential before the Government Laboratory could be lifted from its sad condition to a position of efficiency and order. The year 1931 saw the completion of this task and the new laboratories working at full capacity. A short account of the chief improvements effected is recorded in the sequel.

Throughout the work the guiding principle has been simplicity of arrangement with a maximum of service within the narrow margin of available means. Three new laboratories have been fitted up, viz :—for general analytical work, forensic investigations, and for water analysis. In addition, an office, animal room, preparation rooms and store-room have been provided. The principal laboratories and offices are situated on the first floor and the water room, animal room and preparation rooms on the ground floor.

To provide accommodation for the office of the Government Analyst a wooden partition with door was made across the east end of the Toxicological Laboratory, the upper 2 feet of the partition being of glass. A stone fireplace was built in this office and another of similar design in the General Laboratory. A new desk and a large enclosed bookcase and other necessary furniture were provided.

### TOXICOLOGICAL LABORATORY.

To improve the lighting of the Toxicological Laboratory, which is next to the office, a window was opened between the two existing windows in the north wall (see plan). New benches of seasoned Norwegian pine were fitted into the wall and supported on iron brackets. The benching was 2½ feet in width and 1½ inches in thickness and was stained black with acid aniline treatment. A special table was made for microscopic work and placed in a good light from the new window. The existing sink was removed and used as a wash basin in the Government Analyst's office. In its place an acid-proof stoneware sink was fitted up with draining board and drying rack. At a convenient height above the benches shelves were placed to carry reagent bottles.





General Laboratory.

## GENERAL LABORATORY.

The lighting of this Laboratory has been improved as in the case of the Toxicological Laboratory by opening a second window in the south wall. The main feature of this laboratory is the "island" bench which replaces the obsolete side benches, and occupies the centre of the available space as shown in the plan. The island bench was of dimensions  $14' \times 5' \times 3'$  and was constructed locally under supervision. Norwegian pine was used for the bench tops which were stained acid-proof black as before. Two tiers of reagent shelves were placed over the bench top and two deep stoneware sinks occupied the ends of the bench. Each sink was provided with a set of three composite taps with a swan neck. On each side of the bench, in the centre, an open space allowed for a refuse receptacle, with a drying cupboard above.

A fume cupboard, lined with acid-proof white tiles, was constructed in the south-west corner. The outlet pipe of heavy sheet zinc was carried through the wall above the eaves of the roof in order to promote good draught for the removal of fumes. The south wall now carries an instrument bench, stained black, with a commodious glass case to house the balances. In the absence of a separate balance room this appeared to be the best substitute. Along the north wall, five special cupboards were arranged for chemicals and special reagents, a necessary precaution against the dust of Cyprus. The old system of supplying water to the laboratories by hand pump has been abandoned and a new supply, which is pumped up mechanically, has been installed. The new system has given satisfactory results. A proper drainage system has also been installed with outfall pipes running into an underground cement channel which in turn connects with a newly constructed cess pit. The electric lighting throughout has been improved in conformity with the re-organization.

## WATER LABORATORY.

Benches, 3 feet in height, have been fitted into the wall on three sides of this room with the necessary sinks and plumbing arrangements. In one corner a fume cupboard of dimensions  $3' \times 6' \times 2'$ , of the same type as before mentioned, has been constructed; and the necessary shelving and cupboard have been provided. The addition of an electric oven, water bath and hot-plate have proved a facility in the work of water analysis.

An animal room was made by erecting a partition in the same manner as in the Toxicological Laboratory as shown in the plan. The rat colony was housed in the smaller room and all cages, tripods, trays and feeding pots were



made locally. The larger room, which was supplied with a sink, etc., was used for cleaning cages and housing guinea pigs for experiment. The room adjacent, previously used for lectures, was found unsuitable for this purpose and converted into a store room. The outside stores has been cleared of rubbish and is now used for the storage of corrosive acids and inflammable solvents. Precautions against fire have been taken by the installation of a new type of English hand fire extinguisher. Such appliances are easily operated and readily refilled with carbon tetrachloride.

In the hall an oak screen, indicated in the plan, has been erected and this has increased the privacy of the building and improved its appearance.

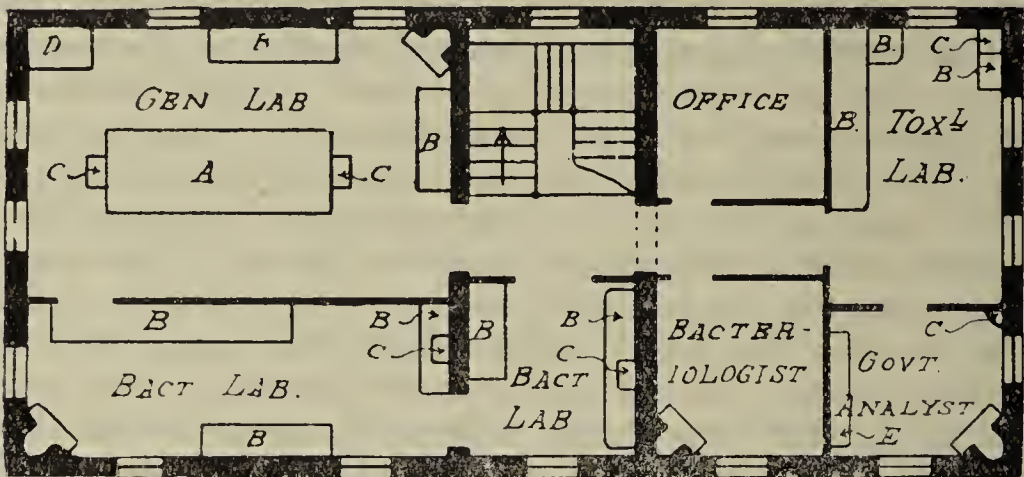
In conclusion, it is a pleasant duty to acknowledge indebtedness to the Red Cross Fund for the grant of about £100, which sum formed the basis for our reorganization scheme. Also from the Public Works Department we have had the advantage of much material advice and assistance at all times.

Government Laboratory—Nicosia.

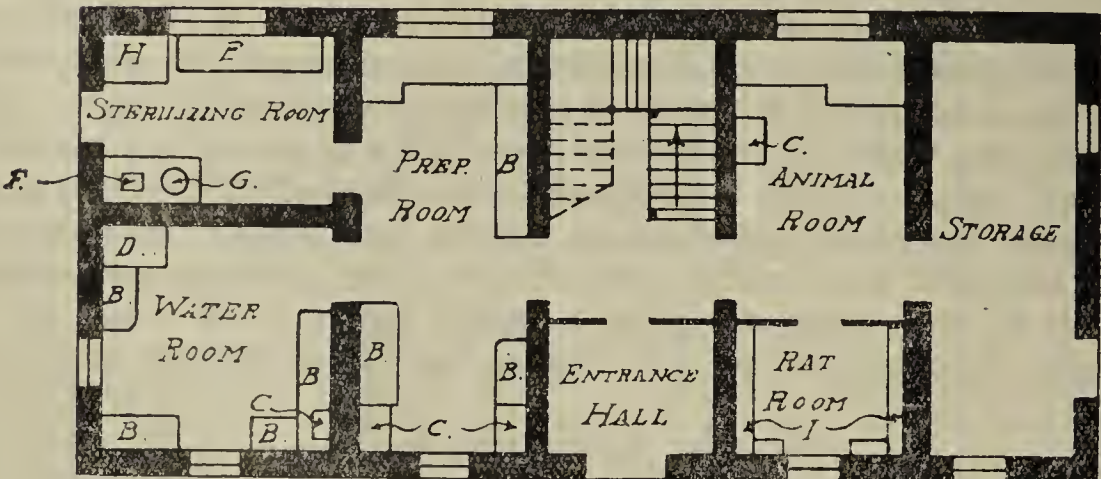
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— OUTBUILDINGS —



— FIRST FLOOR PLAN —



— GROUND FLOOR PLAN —

REFERENCE

- |                   |                |
|-------------------|----------------|
| a) Island bench.  | f) Sterilizer. |
| b) Benches.       | g) Autoclave.  |
| c) Sinks.         | h) Animal cage |
| d) Fume cupboard. | i) Shelves.    |
| e) Library case.  |                |



APPENDIX E.**REPORT OF THE SOCIAL WORKER FOR THE YEAR 1931.**

BY MISS P. M. LYALL, *Welfare Officer*.

This Report surveys the Social Work carried on in the Colony during the past year. Some of it has followed the well-trodden paths of previous years, but there have also been some new ventures, which may be considered as the direct outcome of schemes discussed at the meetings of the Social Hygiene Council.

**EDUCATION AND PROPAGANDA.**

In February, during the Bairam holidays, a week's course of lectures was held in Nicosia for Turkish teachers and the higher classes of the Lycée and the Victoria School and members of the Turkish community generally. The lecturers and their subjects were as follows:— Dr. Strathairn, Sanitation; Dr. Nouri Bey, Common Ailments of School Children; Dr. Gosden, Bacteriology; Dr. Hopton, Tuberculosis and Venereal Disease; Dr. Blackaby, Malaria; Dr. Willimott, Food and Health; Dr. H. Symeonides, Leprosy; Dr. Tahsin, Eye Diseases; Mr. Roe, Care of Animals in Relation to Public Health; Mr. Weir, Citizenship. The audience numbered from 500 to 600 daily.

A similar series of lectures was given at Limassol during the latter part of June for Greek teachers, boys and girls in the higher classes of the Secondary Schools and others. Dr. Coureas gave a lecture on the Health of School Children, and Dr. Tornaritis on Eye Diseases; the other lecturers were the same as before. The lectures were held in the evenings, some of them in the open-air cinema grounds, and they were well attended.

**INFANT WELFARE CENTRES.****1. Nicosia.**

It was mentioned in the last Report that the Committee of the Infant Welfare Centre was arranging for a whole time worker to take charge of this Centre. The new Superintendent, Miss Pantazi, started work on 15th January, and the Centre is now open every week-day. The attendances have naturally greatly increased when compared with those of the previous year, viz., attendances 1,822 against 645, and visits 1,722 compared with 542 in the previous year.

**2. Larnaca.**

It is reported that at Larnaca 495 children made 3,518 attendances, and 2,356 visits were paid to their homes. At this Centre, milk in tins and soap are given to cases thought to be necessitous. A large amount of this milk and soap was given to the Centre.

**DAY NURSERY AT LIMASSOL.**

This institution which was organized by the Society of Greek Ladies, was open for eleven months during the year. There was a daily average of 35 children in attendance. Only those children are accepted whose mothers have to leave their homes for work; they are given two meals daily and also given instruction on kindergarten lines. The institution has been open for about three years and there seems always to be a great demand on its accommodation.

**HOSTEL FOR GIRLS.**

The number of girls admitted to the Hostel was 38. This is fewer than last year. It is difficult to discover the reason why this is so; but there seems to be less movement among servant girls; perhaps the disturbances in the Autumn may have caused them to stay in their villages. The number of girls dealt with under the Law for the Protection of Female Domestic Servants in the district towns is 55 compared with over 100 in 1930. This seems to point to a similar condition of affairs in the other towns also.



Of the new ventures, three may be described as "Holiday Camps" for delicate children.

In Nicosia, the scheme was organized by Miss Persephoni Papadopoulou and the other members of "Pneumatiki Adelphotis." The school buildings were lent free of charge by the Kyrenia Education Board, and here 71 children from the Greek-Christian elementary schools in Nicosia stayed for the month of August, and had a thoroughly happy time with sea-bathing and boating, organized games, etc. Examination of the children on arrival and shortly before their departure showed how much they had benefited physically by the change.

At Larnaca, the camp was organized by the Mayor, though on a private and voluntary basis. The children gathered in the Municipal Garden at 6 a.m. They had breakfast, dinner and tea. The day began with drill and games, followed by sea-bathing. After dinner, a rest, more drill and games and handwork, and they were sent back to their homes at 6.30 p.m. 28 boys and 30 girls were thus entertained for about a month, having benefited greatly by their stay.

At Limassol, the idea of a Holiday Camp was started by the Junior Red Cross League at the Private School of Mrs. Lanitis. The pupils raised funds by means of dances and entertainments, and were also helped by the Mayor of Limassol and the Society of Greek Ladies; the school premises at Platres were lent free of charge by the School Committee of the village. By this means, 22 children from Limassol were sent to Platres and enjoyed fresh mountain air for 35 days. It is hoped, this year, to send more children for a longer period. In reading the reports of these organizations, one is struck with the amount of personal service which was freely given and which contributed so greatly to the success of these ventures.

The other new undertaking was a *Recreation Centre* for Working Lads. This was carried out as an experiment by the Alumni Association of the American Academy at Larnaca for three evenings a week during the month of August. The meeting place of the Centre was the tennis ground of the Academy. The lads from 12 to 20 years old, who attended, were mostly occupied in varieties of manual employment. The average attendance was 66, but the numbers increased each evening and on the last evening there were 100. The Alumni Association felt that such a project meets a real need, while at the same time it was a valuable experience for themselves also. There are many difficulties in such work, and the members of the American Academy showed courage in tackling it. It is to be hoped that others will be inspired to follow their example and to attempt, if possible, to have permanent Recreation Centres in the large towns.

#### ST. BARNABAS' SCHOOL FOR BLIND CHILDREN.

This is an institution which is quite independent of the Social Hygiene Council, it is however, one of the most important pieces of social work in the Island, and no survey would be complete without a reference to it. At the beginning of the year, there were 6 pupils, and at the end of December there were 12, including 11 boys and one girl. There is still room for one or two more; but these could only be admitted if sufficient financial support were forthcoming. The children are taught reading and writing in Greek and English Braille, arithmetic, gymnastics, violin playing and handicrafts, such as mat making, chair caning, basket work, knitting, etc. There is room for endless further development, but this development can only proceed according to the financial resources that are or may be available.



APPENDIX F.**REPORT ON THE MENTAL HOSPITAL FOR THE YEAR 1931.**

BY DR. S. LYSSANDRIDES, *Medical Superintendent.*

I have the honour to submit my first Annual Report on the Cyprus Mental Hospital, Nicosia, for the year 1931.

This Hospital has recently improved so considerably that it can justly claim the name of Mental Hospital to which it was changed some time ago from that of Lunatic Asylum.

**VISITORS.**

The Board of Visitors consisting of Miss P. M. Lyall, Mr. D. N. Demetriou, O.B.E., and M. Munir Bey O.B.E., met on three occasions during the year and made many useful recommendations which have been carried out. During the year several visits were made by Official Visitors as well as by some friends who gave useful presents to the patients.

**BUILDINGS.**

During the last year, a combined Dining and Recreation Room for the females was built, spacious, sunny and hygienic, with a veranda all round. Thus, these patients have now a suitable room in which to pass their time when the weather is not suitable for them to be in the open-air, and to take their meals conveniently and not as previously in their dormitories or in the grounds.

A good wash-house has been built to replace the old one which was quite unsuitable for the purpose.

A Visitors' Room, an Office and Consultation Room have also been built equipped with the proper furniture and instruments.

In addition to the existing Turkish bath, which is used for the cleanliness of the patients, two full-size baths and a shower equipment have been installed for hydrotherapy.

Other essential buildings required for the Mental Hospital are a small Hospital consisting of one female and one male ward for inmates physically ill, a Recreation Room for the Male Division and a special Block for private and contributing patients.

The repairs effected regularly every year are not satisfactory. Owing to the original poor construction of the buildings and to the destructive habits of the mental patients, I recommend the appointment of a mason-carpenter attendant who would be constantly on the spot to repair and upkeep the buildings and furniture, and this without increasing the present expenditure for repairs.

**GROUND.**

Thanks to the interest of the Forest and Agricultural Departments various trees and a flower garden have been planted out but without great success, owing to the rocky nature of the grounds and the cold weather.

**STAFF.**

The Head Warder, Mr. Antony Stassinou, has been of valuable assistance in carrying on the work of the Institution, and the attendants have rendered loyal and satisfactory service; they have treated the patients kindly and sympathetically in accordance with my instructions.

During last year, a barber-attendant was appointed, who has also been put in charge of the baths.

The number of attendants is insufficient in relation to the increased number of the patients (14 attendants, of whom 8 are on duty at a time, to about 180 patients), and I am of opinion that four male and two female attendants should be added to the staff.



## STATISTICS.

On 31st December, 1931, there were 171 patients (119 Males, 52 Females), whilst on 31st December, 1930, there were 168 (111 Males, 57 Females), showing an increase of 3 in total population. The total number treated was 252 (175 Males, 77 Females).

During the year, 84 patients were admitted; of these 64 were males and 20 females.

*Discharges.*—Total number, 71, divided as follows :—

Discharged recovered : 31 males and 16 females, a total of 47.

Discharged relieved : 12 males and 4 females, a total of 16.

Discharged not improved : 5 males and 3 females, a total of 8.

*Escaped.*—One male, who was recaptured after three days.

*Deaths.*—Total number of deaths was 10 (8 Males, 2 Females).

The principal causes of death were general paralysis of the insane and status epilepticus.

Patients relieved or even not improved have been discharged as these patients were quiet, harmless and amenable and could be useful for some work. But such patients get again into the hands of the Police unfortunately in many cases either for slight cause or on account of some excitement caused by being mocked by street boys. It is the policy of the Mental Hospital to keep no patients under control if there is any reason to think that they can be looked after at home, provided, of course, they are quiet and there is no reason to believe that they may be of any danger to themselves or to the community.

Such a policy helps to keep down the total population of the Hospital which otherwise would result to overcrowding and it is also just to the patient.

It is regrettable that the relatives of many of the patients show little or no interest in their patients and are not favourably disposed towards the idea of their return home; also other relatives are only too ready to try and get their patients returned to the Mental Hospital once discharged.

I beg to suggest that certifying Medical Officers should be asked to give greater attention in the examination of the patient himself as “the facts indicating insanity observed at the time of examination” are the most important part of the certificate and to ascertain the correctness of the “facts communicated by others.”

Whilst on this point, I beg to lay stress on the importance of the certifying Medical Officers supplying at the same time information regarding heredity, personal history, apparent cause and history of the present illness, which is of help in diagnosis.

## TREATMENT.

The patients receive sufficient full diet except those for whom there is a reason to be under light diet and milk. Once a week they are washed in the Turkish bath, and those of the patients, who require it for their treatment, have immersion or shower baths.

Tonic medicines and opotherapeutics are in regular use.

For the epileptics we make use of Luminal in doses of 30 centigrammes a day for five days a week and far better results are attained than with Bromides.

General Paralysis of the Insane cases were treated with Tryparsamide and Bisoxyl alternatively and as pyretotherapy intravenous injections of Neosaprovitan in lieu of Malaria inoculation, which could not be practised. Unfortunately, we have not satisfactory results in the treatment of this most serious cerebral disease.

During the last year, we have used Sulfosin Leo mostly for the treatment of Dementia Precox, as well as for General Paralysis of the Insane and other Psychoses. Although the supply of this medicine was limited and consequently few patients benefited of this treatment, the results obtained have been very encouraging. For the current year, an order for a much larger supply has been placed.



## OCCUPATION OF PATIENTS.

A number of patients are employed in various occupations. Any patient fit for work is employed, if skilled at his particular occupation, and if unskilled on unskilled work. Most of them are used to help the attendants in their work, others do light work as masons or carpenters. Some do sewing, repairing of mattresses, and others look after the gardens and grounds.

Female patients work in the Laundry and kitchen and do all the mending of the clothing. The amount of work done in the way of repairing garments, etc., is very great, especially by the patient No. 15 F. who is of great value for the Hospital. A small number of female patients occupy themselves in embroidery and needlework. Some of them do house work assisting the attendants.

## AMUSEMENT OF PATIENTS.

A good supply of books, magazines and papers have been gratuitously provided. The Visitors' Room is used as Reading Room by the patients when not required for its main purpose.

A Gramophone of a good make with a big selection of records, all of which were given by friends, is provided and a guitar and some indoor games are available for the patients. Those allowed to smoke are provided with cigarettes. Special festival dinners were provided by the Hospital on Easter and Christmas and New Year's Day. The amount granted from the Hospital Christmas Fund was utilized for the purchase of additional clothing, such as pullovers, socks, stockings, boots, handkerchiefs, etc., which were distributed to the patients on Christmas Day, and sweetmeats, cakes, cigarettes, and the like were provided by friends of the Mental Hospital.

## CHURCH SERVICES.

No religious services were held, but a priest visited the Hospital occasionally, especially for administering the Holy Communion. Some of the patients were allowed to attend the services at the nearby village church on the most important holidays, always accompanied by an attendant.

Before closing, I beg to state that much remains to be done for the betterment of the Mental Hospital to bring it in line with modern mental practice and it is hoped that the Government will agree to the various suggestions put forward for this purpose.

TABLE I.—SHOWING THE ACTUAL ADMISSIONS, RE-ADMISSIONS, DISCHARGES AND DEATHS DURING THE CALENDAR YEAR ENDED 31ST DECEMBER, 1931.

	<i>Males Fem. Total</i>			<i>Males Fem. Total</i>		
	—	—	—	—	—	—
In the Mental Hospital, 1st January, 1931	—	—	—	111	57	168
Cases admitted :						
First Admissions .. .. .	41	9	50	—	—	—
Not first admissions .. .. .	23	11	34	—	—	—
Total cases admitted during the year ..	—	—	—	64	20	84
Total cases under care during the year ..	—	—	—	175	77	252
Cases discharged :						
Recovered .. .. .	31	16	47	—	—	—
Relieved .. .. .	12	4	16	—	—	—
Not improved .. .. .	5	3	8	—	—	—
Died .. .. .	8	2	10	—	—	—
Total discharged and died during the year	—	—	—	56	25	81
Remaining in the Mental Hospital, 31st December, 1931. .. .. .	—	—	—	119	52	171

TABLE II.—OBITUARY SHOWING THE CAUSES OF DEATHS DURING THE  
CALENDAR YEAR, 1931, WITH THE FORM OF MENTAL DISORDER AND AGE  
AT DEATHS.

<i>Register No.</i>	<i>Age —</i>	<i>Sex —</i>	<i>Form of Mental Disorder —</i>	<i>Date of Admission —</i>	<i>Cause of Death —</i>
76	43	M.	Epilepsy .. ..	18.5.1929	Status Epilepticus
132	45	M.	General Paralysis ..	22.7.1930	Epileptiform Attacks
58	36	F.	General Paralysis ..	5.9.1930	Exhaustion
155	38	M.	Cerebral Syphilis ..	15.11.1930	Apoplexy
172	48	M.	Intermittent Psycho- sis (Mania) ..	7.4.1931	Collapse
75	45	F.	Mental Deficiency ..	5.5.1931	Dysentery
175	40	M.	General Paralysis ..	12.5.1931	Epileptiform Attacks
178	30	M.	„ „ ..	21.5.1931	Exhaustion
194	50	M.	„ „ ..	4.7.1931	do.
215	45	M.	„ „ ..	4.11.1931	Epileptiform Attacks

TABLE III.—SHOWING THE FORM OF MENTAL DISORDERS IN THE ADMISSIONS,  
RECOVERIES AND DEATHS DURING THE YEAR AND FORM OF MENTAL  
DISORDER OF THE INMATES ON 31ST DECEMBER, 1931.

Form of Mental Disorder —	Admissions			Recoveries			Deaths			Remaining in Hospital		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Congenital or infantile Mental Deficiency (Idiocy, Imbecility, Feeble-mindedness) occurring as early in life as it can be observed ..	6	2	8	5	—	5	—	1	1	17	4	21
Dementia Præcox .. (Hebephrenia, Katatonia, Dem. Paranoids)	13	4	17	—	—	—	—	—	—	50	28	78
Paraphrenia, Paranoia	2	—	2	1	—	1	—	—	—	6	1	7
Manic-Depressive Psychoses (Mania, Melancholia, Alternating) ..	10	9	19	13	11	24	1	—	1	7	7	14
Senile Dementia ..	—	—	—	—	—	—	—	—	—	7	2	9
Acute Confusional Insanity .. .. .	2	3	5	2	4	6	—	—	—	1	—	1
Alcoholic Psychoses ..	6	—	6	6	—	6	—	—	—	1	—	1
Morphinomania ..	1	—	1	1	—	1	—	—	—	—	—	—
General Paralysis of the Insane .. .. .	10	—	10	—	—	—	6	1	7	6	—	6
Epileptic Insanity ..	8	1	9	1	1	2	1	—	1	15	7	22
Dementia, Secondary or Terminal .. ..	—	—	—	—	—	—	—	—	—	6	1	7
Bordelands .. ..	1	1	2	—	—	—	—	—	—	—	1	1
Paralysis Agitans, Encephalitis Lethargica	2	—	2	—	—	—	—	—	—	2	1	3
Feigned Insanity ..	3	—	3	2	—	2	—	—	—	1	—	1
Total .. .. .	64	20	84	31	16	47	8	2	10	119	52	171



TABLE I.

Dr. G. C. Strathairn, <i>Director of Health.</i>
Dr. C. H. Cuff, <i>Surgical Specialist.</i>
Dr. R. E. Hopton, <i>Specialist in Venereal Diseases.</i>
Dr. L. Fraser, <i>District Medical Officer, Famagusta.</i>
Dr. R. L. Cheverton, <i>District Medical Officer, Limassol.</i>
Dr. H. Symeonides, <i>Medical Officer, 1st Grade, Nicosia.</i>
Dr. P. M. Polydorides, <i>Medical Officer, 1st Grade, Kyrenia.</i>
Dr. G. M. Pietroni, <i>Medical Officer, 1st Grade, Larnaca.</i>
Dr. Th. Astreos, <i>Medical Officer, 1st Grade, Paphos.</i>
Dr. C. Myrianthis, <i>Medical Officer, 2nd Grade, Akhna.</i>
Dr. M. Lazarides, <i>Medical Officer, 2nd Grade, Myrtou.</i>
Dr. M. Kontarinis, <i>Medical Officer, 2nd Grade, Pedoulas.</i>
Dr. Ph. Jacovides, <i>Medical Officer, 2nd Grade, Leonarisso.</i>
Dr. E. Magnis, <i>Medical Officer, 2nd Grade, Limassol.</i>
Dr. G. Atrides, <i>Medical Officer, 2nd Grade, Lefkoniko.</i>
Dr. Ch. Papaioannou, <i>Medical Officer, 2nd Grade, Lythrodonta.</i>
Dr. J. S. Makrides, <i>Medical Officer, 2nd Grade, Polis.</i>
Dr. S. Constantinides, <i>Medical Officer, 2nd Grade, Morphou.</i>
Dr. C. Myrianthopoulos, <i>Medical Officer, 2nd Grade, Klirou.</i>
Dr. P. A. Anastassiades, <i>Medical Officer, 2nd Grade, Athiænou.</i>
Dr. Halil Fikri, <i>Medical Officer, 2nd Grade, Lefka.</i>
Dr. A. Josephakis, <i>Medical Officer, 2nd Grade, Trikomo.</i>
Dr. N. C. Fekkos, <i>Medical Officer, 2nd Grade, Lefkara.</i>
Dr. J. Christodoulides, <i>Medical Officer, 2nd Grade, Kilani.</i>
Dr. A. Economides, <i>Medical Officer, 2nd Grade, Anoyira.</i>
Dr. N. Stylianou, <i>Medical Officer, 2nd Grade, Pyrgos.</i>
Dr. Chr. Volos, <i>Medical Officer, 2nd Grade, Kelokedhara.</i>
Dr. P. E. Demetriades, <i>Medical Officer, 2nd Grade, Nicosia.</i>
Dr. C. Rodhosthenis, <i>Medical Officer, 2nd Grade, Palæochorio.</i>
Dr. M. Liassides, <i>Medical Officer, 2nd Grade, Stroumbi.</i>
Dr. E. Paraskevaides, <i>Medical Officer, 2nd Grade, Nicosia.</i>
Dr. S. N. Papadopoulos, <i>Medical Officer, 2nd Grade, Lyso.</i>
Dr. Z. K. Zardis, <i>Medical Officer, 2nd Grade, Agros.</i>
Dr. C. S. Markides, <i>Medical Officer, 2nd Grade, Vatili.</i>
Dr. M. Pieris, <i>Medical Officer, 2nd Grade, Kellaki.</i>
Dr. P. Koumas, <i>Medical Officer, 2nd Grade, Limassol.</i>
Dr. Hassan Tahsin Salih, <i>Travelling Oculist.</i>
Dr. Mehmed Ali, <i>Travelling Oculist.</i>
Dr. Chr. Tornaritis, <i>Travelling Oculist.</i>
Miss A. Moxon, <i>Matron, Nicosia General Hospital.</i>
Miss A. Barclay, <i>Matron, Limassol Government Hospital.</i>
Miss W. Wilson, <i>Matron, Leper Hospital.</i>
Miss C. A. Wyeth, <i>Matron, Sanatorium.</i>
Miss J. E. Crowe, <i>Nursing Sister, Nicosia Government Hospital.</i>
Miss M. M. Murphy, <i>Nursing Sister, Nicosia Government Hospital.</i>
Miss E. C. Davies, <i>Nursing Sister, Nicosia Government Hospital.</i>
Miss H. E. Hall, <i>Nursing Sister, Limassol Government Hospital.</i>
Miss M. McGrail, <i>Nursing Sister, Limassol Government Hospital.</i>
Dr. S. G. Willimott, <i>Government Analyst.</i>
Dr. M. Gosden, <i>Government Bacteriologist.</i>
M. Aziz, <i>Chief Sanitary Inspector.</i>
Miss P. M. Lyall, <i>Welfare Officer.</i>
Dr. S. Lyssandrides, <i>Medical Superintendent, Mental Hospital.</i>
Dr. Chr. Kalavros, <i>Honorary Oculist, Nicosia Hospital.</i>
Dr. Chr. Tsiros, <i>Honorary Oculist, Larnaca Hospital.</i>
Dr. Chr. Makrides, <i>Honorary Oculist, Limassol Hospital.</i>
Dr. N. Michaelides, <i>Assistant Medical Officer, Venereal Clinics.</i>
Dr. M. J. Fterakis, <i>Assistant Medical Officer, Venereal Clinics.</i>
Dr. S. Pastides, <i>Assistant Medical Officer, Venereal Clinics.</i>
Dr. C. Kronides, <i>Assistant Medical Officer, Venereal Clinics.</i>
Dr. Hassan Atta Hikmet, <i>Assistant Medical Officer, Venereal Clinics.</i>
J. G. Marcellos, <i>Honorary Dentist, Nicosia Hospital.</i>
V. Diamantides, <i>Honorary Dentist, Larnaca Hospital.</i>
Y. P. Michaelides, <i>Honorary Dentist, Limassol Hospital.</i>
Dr. M. Coureas, <i>Honorary Consulting Physician, Nicosia Gov. Hospital.</i>
Dr. S. G. Papadopoulos, <i>Honorary Consulting Surgeon, Nicosia Govment Hospital.</i>
Dr. A. Gavrielides, <i>Honorary Consulting Surgeon, Limassol Gov. Hospital.</i>



APPENDIX H.

TABLE II.  
FINANCIAL.  
DEPARTMENT OF HEALTH.  
EXPENDITURE, 1931.

							£	s.	cp.
Personal Emoluments	..	..	..	..	..	..	25,115	15	4
Other Charges :—									
Wages :—									
Central Hospital, Nicosia	..	..	..	..	..	..	246	14	8
Sanatorium, Nicosia	..	..	..	..	..	..	121	6	8
Limassol Hospital	..	..	..	..	..	..	135	0	0
Mental Hospital	..	..	..	..	..	..	42	0	0
Leper Farm	..	..	..	..	..	..	338	16	0
Government Laboratories	..	..	..	..	..	..	47	10	1
Food, Clothing and Miscellaneous :—									
Central Hospital, Nicosia	..	..	..	..	..	..	2,314	16	6
Sanatorium, Nicosia	..	..	..	..	..	..	1,462	1	5
Limassol Hospital	..	..	..	..	..	..	713	3	3
Mental Hospital	..	..	..	..	..	..	1,883	5	5
Leper Farm	..	..	..	..	..	..	2,448	17	5
Drugs and Surgical Supplies	..	..	..	..	..	..	3,704	6	8
Care of Healthy Children of Lepers	..	..	..	..	..	..	223	7	0
Extra Assistance :—									
Medical	..	..	..	..	..	..	427	11	7
Nursing	..	..	..	..	..	..	329	15	4
Prevention of Disease	..	..	..	..	..	..	5,619	11	8
Disinfection	..	..	..	..	..	..	153	15	8
Midwifery	..	..	..	..	..	..	739	6	2
Venereal Clinics	..	..	..	..	..	..	2,980	2	8
Social Work	..	..	..	..	..	..	30	17	5
Chemicals and Equipment of Laboratories	..	..	..	..	..	..	331	4	4
The Food and Drugs Law, 1926	..	..	..	..	..	..	15	12	1
Expenses of Medical Assessors	..	..	..	..	..	..	—	—	—
Fees to Analytical Staff for Lectures	..	..	..	..	..	..	10	0	0
Remuneration to Examiners in Pharmacy	..	..	..	..	..	..	8	0	0
School for Sanitary Inspectors	..	..	..	..	..	..	145	7	6
Contributions to :—									
Other Hospitals	..	..	..	..	..	..	1,272	0	0
Tropical Diseases Bureau	..	..	..	..	..	..	200	0	0
Colonial Advisory Medical and Sanitary Committee	..	..	..	..	..	..	15	13	0
Health Education Bureau	..	..	..	..	..	..	105	0	0
Hospital Equipment	..	..	..	..	..	..	271	14	8
Commission on Sale of Drugs	..	..	..	..	..	..	55	3	6
Books and Periodicals	..	..	..	..	..	..	59	17	3
Uniforms	..	..	..	..	..	..	171	15	4
Travelling	..	..	..	..	..	..	2,026	15	5
Rent	..	..	..	..	..	..	112	4	6
Lighting and Heating	..	..	..	..	..	..	352	19	3
Postage, Telegrams and Sundries	..	..	..	..	..	..	114	4	4
Special Expenditure :—									
X-Ray Apparatus	..	..	..	..	..	..	444	10	3
Training of Health Department Officials	..	..	..	..	..	..	80	0	0
Total	..	..	..	..	..	..	£54,870	6	4



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases					IN-PATIENTS					OUT-PATIENTS	
					Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
						Admis- sions	Deaths				
I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES.											
1. Enteric Group :—											
(a) Typhoid Fever	..	..	—	27	6	27	2	20	25		
(b) Paratyphoid A.	..	..	—	—	—	—	—	2	4		
(c) Paratyphoid B.	..	..	—	3	—	3	—	—	—		
(d) Type not defined	..	..	—	1	—	1	—	1	9		
2. Typhus	..	..	..	—	—	—	—	—	—		
3. Relapsing Fever	..	..	..	—	—	—	—	—	—		
4. Undulant Fever	..	..	..	—	—	—	—	—	—		
5. Malaria :—											
(a) Tertian	..	..	..	4	311	3	315	2	7,835	7,194	
(b) Quartan	..	..	..	1	78	—	79	1	435	409	
(c) Aestivo-autumnal	..	..	—	23	1	23	—	525	590		
(d) Cachexia	..	..	..	3	8	—	11	—	158	193	
(e) Blackwater	..	..	..	—	1	—	1	—	4	2	
6. Small-pox :—											
Alastrin	..	..	..	—	—	—	—	—	—	—	
7. Measles	..	..	..	—	—	—	—	54	50		
8. Scarlet Fever	..	..	..	—	—	—	—	8	3		
9. Whooping Cough	..	..	..	—	—	—	—	315	297		
10. Diphtheria	..	..	..	—	3	—	3	10	7		
11. Influenza	..	..	..	—	41	1	41	530	352		
12. Miliary Fever	..	..	..	—	—	—	—	—	—		
13. Mumps	..	..	..	—	1	—	1	36	18		
14. Cholera	..	..	..	—	—	—	—	—	—		
15. Epidemic diarrhoea	..	..	—	—	—	—	—	—	—		
16. Dysentery :—											
(a) Amœbic	..	..	..	—	4	2	4	9	15		
(b) Bacillary	..	..	..	—	11	1	11	40	40		
(c) Undefined or due to other causes	..	..	..	—	10	—	10	44	40		
Carried forward	..	..		8	522	14	530	5	10,026	9,248	

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	8	522	14	530	5	10,026	9,248
<b>I. EPIDEMIC, ENTEMIC AND INFECTIOUS DISEASES—continued.</b>							
17. Plague :—							
(a) Bubonic .. ..	—	—	—	—	—	—	—
(b) Pneumonic .. ..	—	—	—	—	—	—	—
(c) Septicæmic .. ..	—	—	—	—	—	—	—
(d) Undefined .. ..	—	—	—	—	—	—	—
18. Yellow Fever .. ..	—	—	—	—	—	—	—
19. Spirochætosis .. ..	—	—	—	—	—	—	—
Ictero-hæmorrhagica .. ..	—	—	—	—	—	—	—
20. Leprosy .. ..	—	—	—	—	—	3	3
21. Erysipelas .. ..	—	20	—	20	—	39	42
22. Acute Poliomyelitis .. ..	1	—	—	1	—	5	2
23. Encephalitis Lethargica .. ..	—	—	—	—	—	4	—
24. Epidemic Cerebro-spinal Fever .. ..	—	3	2	3	—	—	1
25. Other Epidemic Diseases :—							
(a) Rubeola (German Measles)	—	—	—	—	—	1	2
(b) Varicella (Chicken-Pox) .. ..	—	—	—	—	—	64	84
(c) Kala-azar .. ..	—	—	—	—	—	2	1
(d) Phlebotomus Fever .. ..	—	—	—	—	—	—	—
(e) Dengue .. ..	—	—	—	—	—	—	—
(f) Epidemic Dropsy .. ..	—	—	—	—	—	—	—
(g) Yaws .. ..	—	—	—	—	—	—	—
(h) Trypanosomiasis .. ..	—	—	—	—	—	—	—
26. Glanders .. ..	—	—	—	—	—	8	7
27. Anthrax .. ..	—	10	1	10	—	18	7
28. Rabies .. ..	—	—	—	—	—	—	—
29. Tetanus .. ..	—	8	2	8	—	2	4
30. Mycosis .. ..	—	1	—	1	—	—	—
31. Tuberculosis, Pulmonary and Laryngeal .. ..	18	78	17	96	28	179	88
32. Tuberculosis of the Meninges or Central Nervous System .. ..	—	6	4	6	—	1	1
33. Tuberculosis of the Intestines or Peritoneum .. ..	—	21	3	21	1	8	7
34. Tuberculosis of the Vertebral Column .. ..	2	13	—	15	2	13	3
35. Tuberculosis of Bones and Joints .. ..	3	35	1	38	8	44	16
Carried forward .. ..	32	717	44	749	44	10,417	9,516



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	32	717	44	749	44	10,417	9,516
<b>I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES—continued.</b>							
36. Tuberculosis of other organs :—							
(a) Skin or Subcutaneous Tissue (Lupus) .. ..	—	11	—	11	—	4	6
(b) Bones .. ..	—	4	—	4	—	1	3
(c) Lymphatic System .. ..	—	9	2	9	—	15	11
(d) Genito-urinary .. ..	—	8	—	8	—	2	—
(e) Other organs .. ..	—	1	—	1	—	1	—
37. Tuberculosis disseminated :—							
(a) Acute .. ..	—	—	—	—	—	10	4
(b) Chronic .. ..	—	—	—	—	—	7	12
38. Syphilis :—							
(a) Primary .. ..	1	18	2	19	—	62	11
(b) Secondary .. ..	2	5	—	7	—	379	258
(c) Tertiary .. ..	1	2	1	3	—	9	11
(d) Hereditary .. ..	—	—	—	—	—	1	1
(e) Period not indicated ..	—	2	—	2	—	5	3
39. Soft Chancre .. ..	1	5	—	6	—	2	2
40. A.—Gonorrhœa & its complications	5	153	1	158	8	1,229	982
B.—Gonorrhœal Ophthalmia ..	—	—	—	—	—	—	—
C.—Gonorrhœal Arthritis .. ..	—	1	—	1	—	—	—
D.—Granuloma Venereum .. ..	—	3	—	3	—	1	—
41. Septicæmia .. ..	—	13	7	13	1	15	12
42. Other Infectious Diseases :— Trypanosomiasis .. ..	—	—	—	—	—	—	—
<b>II. GENERAL DISEASES NOT MENTIONED ABOVE.</b>							
43. Cancer or other malignant Tumours of the Buccal Cavity .. ..	2	7	—	9	2	2	2
44. Cancer or other malignant Tumours of the Stomach or Liver ..	1	13	2	14	—	6	6
45. Cancer or other malignant Tumours of the Peritoneum Intestines, Rectum .. ..	—	5	1	5	—	2	1
46. Cancer or other malignant Tumours of the Female Genital Organs ..	2	42	6	44	2	—	22
Carried forward .. ..	47	1,019	66	1,066	57	12,170	10,863

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	47	1,019	66	1,066	57	12,170	10,863
II. GENERAL DISEASES NOT MENTIONED ABOVE— <i>continued</i> .							
47. Cancer or other malignant Tumours of the Breast .. ..	—	12	—	12	1	—	2
48. Cancer or other malignant Tumours of the Skin .. ..	1	15	—	16	—	25	18
49. Cancer or other malignant Tumours of Organs not specified ..	—	32	1	32	7	4	6
50. Tumours non-malignant .. ..	1	46	—	47	—	65	61
51. Acute Rheumatism .. ..	2	64	—	66	—	513	626
52. Chronic Rheumatism .. ..	2	28	—	30	2	471	692
53. Scurvy (including Barlow's Disease	—	—	—	—	—	1	1
54. Pellagra .. ..	—	—	—	—	—	—	—
55. Beri-Beri .. ..	—	—	—	—	—	—	—
56. Rickets .. ..	—	—	—	—	—	5	3
57. Diabetes (not including Insipidus)	—	4	1	4	1	13	3
58. Anæmia :—							
(a) Pernicious .. ..	—	3	2	3	—	113	162
(b) Other Anæmias & Chlorosis	—	14	2	14	1	640	1,297
59. Diseases of the Pituitary Body ..	—	—	—	—	—	2	—
60. Diseases of the Thyroid Gland :—							
(a) Exophthalmic Goitre ..	—	1	—	1	—	2	3
(b) Other diseases of the Thyroid Gland, Myxoedema ..	—	7	—	7	—	1	4
61. Diseases of the Para-Thyroid Glands	—	—	—	—	—	3	2
62. Diseases of the Thymus .. ..	—	—	—	—	—	2	1
63. Diseases of the Supra-Renal Glands	—	1	—	1	—	2	3
64. Diseases of the Spleen .. ..	1	9	1	10	—	314	199
65. Leukæmia :—							
(a) Leukæmia .. ..	—	—	—	—	—	—	—
(b) Hodgkin's Disease .. ..	—	—	—	—	—	—	1
66. Alcoholism .. ..	—	1	—	1	—	2	—
67. Chronic poisoning by mineral sub- stances (lead, mercury, etc.) ..	—	3	1	3	—	—	—
68. Chronic poisoning by organic sub- stances (Morphia, Cocaine, etc.)	—	—	—	—	—	—	—
Carried forward .. ..	'54	1,259	74	1,313	69	14,348	13,947



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	54	1,259	74	1,313	69	14,348	13,947
II. GENERAL DISEASES NOT MENTIONED ABOVE— <i>continued</i> .							
69. Other General Diseases :—							
Auto-intoxication .. ..	—	—	—	—	—	3	2
Purpura Hæmorrhagica ..	—	2	—	2	—	7	3
Hæmophilia .. .. .	—	1	1	1	—	5	4
Diabetes Insipidus .. ..	—	3	—	3	—	10	2
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF THE SENSES.							
70. Encephalitis (not including Ence- phalitis Lethargica) .. ..	—	—	—	—	—	—	—
71. Meningitis (not including Tuber- culous Meningitis or Cerebro- spinal Meningitis) .. ..	—	10	4	10	—	4	1
72. Locomotor Ataxia .. ..	—	—	—	—	—	2	—
73. Other affections of the Spinal Cord	—	2	—	2	—	2	1
74. Apoplexy :—							
(a) Hæmorrhage .. ..	—	5	1	5	—	5	4
(b) Embolism .. .. .	—	—	—	—	—	—	—
(c) Thrombosis .. .. .	—	—	—	—	—	1	1
75. Paralysis :—							
(a) Hemiplegia .. .. .	1	7	1	8	—	36	32
(b) Other Paralyses .. ..	—	7	—	7	—	30	12
76. General Paralysis of the Insane ..	—	—	—	—	—	1	—
77. Other forms of Mental Alienation ..	—	1	—	1	—	4	3
78. Epilepsy .. .. .	—	12	—	12	—	80	35
79. Eclampsia, Convulsions (non-puer- peral) 5 years or over .. ..	—	—	—	—	—	1	2
80. Infantile Convulsions .. ..	—	—	—	—	—	8	30
81. Chorea .. .. .	—	—	—	—	—	2	3
82. A.—Hysteria .. .. .	—	16	—	16	—	596	776
B.—Neuritis .. .. .	—	12	—	12	1	1,215	770
C.—Neurasthenia .. ..	—	21	—	21	—	191	318
83. Cerebral Softening .. ..	—	—	—	—	—	—	—
84. Other affections of the Nervous Sys- tem, such as Paralysis Agitans	—	1	1	1	—	143	140
Carried forward .. ..	55	1,359	82	1,414	70	16,694	16,059

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward . . . .	55	1,359	82	1,414	70	16,694	16,059
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF THE SENSES— <i>contd.</i>							
85. Affections of the Organs of Vision:							
(a) Diseases of the eye . .	—	8	—	8	—	151	194
(b) Conjunctivitis . . . .	—	3	—	3	—	2,566	2,392
(c) Trachoma . . . . .	1	28	—	29	1	4,443	3,352
(d) Tumours of the Eye . .	—	1	—	1	—	16	12
(e) Other affections of the Eye	3	33	—	36	1	989	977
86. Affections of the Ear or Mastoid Sinus . . . . .	2	43	—	45	1	818	699
IV. AFFECTIONS OF THE CIRCULATORY SYSTEM.							
87. Pericarditis . . . . .	—	—	—	—	—	5	4
88. Acute Endocarditis or Myocarditis	—	4	—	4	—	34	41
89. Angina Pectoris . . . . .	—	—	—	—	—	4	2
90. Other Diseases of the Heart:—							
(a) Valvular:—							
Mitral . . . . .	—	34	14	34	1	41	71
Aortic . . . . .	—	4	1	4	—	5	15
Tricuspid . . . . .	—	—	—	—	—	—	2
Pulmonary . . . . .	—	—	—	—	—	1	4
(b) Myocarditis . . . . .	—	24	6	24	—	45	45
91. Diseases of the Arteries:—							
(a) Aneurism . . . . .	—	1	—	1	—	2	2
(b) Arterio-Sclerosis . . . .	—	5	1	5	—	156	159
(c) Other diseases . . . . .	1	1	—	2	—	2	—
92. Embolism or Thrombosis (non- cerebral) . . . . .	1	—	—	1	—	—	—
93. Diseases of the Veins:—							
Hæmorrhoids . . . . .	1	16	1	17	—	75	35
Varicose Veins . . . . .	1	16	—	17	1	60	44
Phlebitis . . . . .	1	2	1	3	—	3	5
94. Diseases of the Lymphatic System:—							
Lymphangitis . . . . .	—	9	—	9	—	28	19
Lymphadenitis Bubo (non- specific) . . . . .	2	12	—	14	—	60	78
95. Hæmorrhage of undetermined cause	—	6	—	6	—	37	15
96. Other affections of the Circulatory System . . . . .	—	—	—	—	—	8	9
Carried forward . . . . .	68	1,609	106	1,677	75	26,243	24,235



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	68	1,609	106	1,677	75	26,243	24,235
<b>V. AFFECTIONS OF THE RESPIRATORY SYSTEM.</b>							
97. Diseases of the Nasal Passages :—							
Adenoids .. ..	—	6	—	6	—	47	42
Polypus .. ..	—	1	—	1	—	7	3
Rhinitis .. ..	—	10	—	10	—	80	50
Coryza .. ..	—	30	—	30	1	2,253	1,403
98. Affections of the Larynx :—							
Laryngitis .. ..	—	2	—	2	—	46	35
99. Bronchitis :—							
(a) Acute .. ..	2	97	1	99	2	1,675	1,458
(b) Chronic .. ..	2	46	—	48	—	773	651
100. Broncho-Pneumonia .. ..	—	41	7	41	—	122	96
101. Pneumonia :—							
(a) Lobar .. ..	5	80	20	85	7	136	75
(b) Unclassified .. ..	—	2	—	2	—	29	12
102. Pleurisy, Empyema .. ..	3	37	2	40	1	88	71
103. Congestion of the Lungs .. ..	—	1	1	1	1	117	153
104. Gangrene of the Lungs .. ..	—	3	—	3	—	—	—
105. Asthma .. ..	—	7	2	7	1	122	121
106. Pulmonary Emphysema .. ..	—	1	—	1	—	5	2
107. Other affections of the Lungs :—							
Pulmonary Spirochætosis .. ..	—	1	—	1	—	4	1
<b>VI. DISEASES OF THE DIGESTIVE SYSTEM.</b>							
108. A.—Diseases of the Teeth or Gums :—							
Caries, Pyorrhœa, etc. .. ..	—	3	—	3	—	120	110
B.—Other affections of the Mouth :—							
Stomatitis .. ..	1	1	—	2	—	120	149
Glossitis, etc. .. ..	—	—	—	—	—	12	15
109. Affections of the Pharynx or Tonsils :—							
Tonsillitis .. ..	1	58	—	59	1	557	457
Pharyngitis .. ..	—	4	—	4	—	84	68
110. Affections of the Oesophagus .. ..	—	2	—	2	—	2	1
111. A.—Ulcer of the Stomach .. ..	1	8	—	9	—	34	8
B.—Ulcer of the Duodenum .. ..	—	4	1	4	1	6	—
Carried forward .. ..	83	2,054	140	2,137	90	32,682	29,216

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	83	2,054	140	2,137	90	32,682	29,216
VI. DISEASES OF THE DIGESTIVE SYSTEM— <i>continued.</i>							
112. Other affections of the Stomach :—							
Gastritis .. ..	1	85	1	86	3	1,142	1,640
Dyspepsia, etc .. ..	—	47	—	47	—	1,451	2,337
113. Diarrhoea and Enteritis :—							
Under two years .. ..	—	1	1	1	—	766	555
114. Diarrhoea and Enteritis :—							
Two years and over .. ..	2	84	2	86	2	1,139	864
Colitis .. ..	—	16	—	16	2	133	148
Ulceration .. ..	—	2	—	2	—	—	—
114a. Sprue .. ..	—	—	—	—	—	2	3
115. Ankylostomiasis .. ..	—	—	—	—	—	—	—
116. Diseases due to Intestinal Parasites :							
(a) Cestoda (Tænia) .. ..	—	—	—	—	—	22	28
(b) Trematoda (Flukes) .. ..	—	—	—	—	—	—	—
(c) Nematoda (other than An- kylostoma) :—							
Ascaris .. ..	—	—	—	—	—	300	222
Trichocephalus dispar .. ..	—	—	—	—	—	—	—
Trichina .. ..	—	—	—	—	—	—	—
Dracunculus .. ..	—	—	—	—	—	—	—
Strongylus .. ..	—	—	—	—	—	1	—
Oxyuris .. ..	—	2	—	2	—	50	89
(d) Coccidia .. ..	—	—	—	—	—	—	1
(e) Other parasites .. ..	—	—	—	—	—	4	4
(f) Unclassified .. ..	—	—	—	—	—	7	12
117. Appendicitis .. ..	3	164	5	167	6	100	116
118. Hernia .. ..	7	199	7	206	2	474	60
119. A.—Affections of the Anus Fistula, etc. . . . .	—	38	1	38	3	42	15
B.—Other affections of the Inte- stines :—							
Enteroptosis .. ..	—	9	1	9	—	2	12
Constipation .. ..	—	15	—	15	—	884	920
120. Acute Yellow Atrophy of the Liver	—	—	—	—	—	—	—
121. Hydatid of the Liver .. ..	1	18	3	19	2	5	4
Carried forward .. ..	97	2,734	161	2,831	110	39,206	36,246



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. .. .	97	2,734	161	2,831	110	39,206	36,246
VI. DISEASES OF THE DIGESTIVE SYSTEM— <i>continued</i> .							
122. Cirrhosis of the Liver :—							
(a) Alcoholic .. .. .	—	3	1	3	—	8	2
(b) Other forms .. .. .	—	3	—	3	—	13	7
123. Biliary Calculus .. .. .	—	—	—	—	—	4	7
124. Other affections of the Liver :—							
Abscess .. .. .	—	2	2	2	—	23	10
Hepatitis .. .. .	1	25	2	26	—	123	103
Colecystitis .. .. .	1	4	—	5	—	23	39
Jaundice .. .. .	—	12	—	12	—	46	45
125. Diseases of the Pancreas .. .. .	—	—	—	—	—	1	—
126. Peritonitis (of unknown cause) .. .. .	—	12	6	12	1	9	18
127. Other affections of the Digestive System .. .. .	—	6	3	6	—	19	13
VII. DISEASES OF THE GENITO-URINARY SYSTEM (NON-VENEREAL).							
128. Acute Nephritis .. .. .	—	25	2	25	—	98	99
129. Chronic .. .. .	2	11	1	13	2	65	91
130. A.—Chyluria .. .. .	—	—	—	—	—	1	2
B.—Schistosomiasis .. .. .	—	—	—	—	—	1	—
131. Other affections of the Kidneys :—							
Pyelitis, etc. .. .. .	—	3	—	3	—	13	10
132. Urinary Calculus .. .. .	1	25	1	26	1	58	29
133. Diseases of the Bladder :—							
Cystitis .. .. .	1	20	1	21	1	102	60
134. Diseases of the Urethra :—							
(a) Stricture .. .. .	—	14	1	14	—	19	1
(b) Other .. .. .	—	8	1	8	1	12	6
135. Diseases of the Prostate :—							
Hypertrophy .. .. .	1	4	—	5	—	8	—
Prostatitis .. .. .	1	21	1	22	1	20	—
Carried forward .. .. .	105	2,932	183	3,037	117	39,872	36,788

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	105	2,932	183	3,037	117	39,872	36,788
VIII. DISEASES OF THE GENITO-URINARY SYSTEM (NON-VENEREAL)— <i>cntd.</i>							
136. Diseases (non-Venereal) of the Ge- nital Organs of Man :—							
Epididymitis .. ..	—	2	—	2	—	13	—
Orchitis .. ..	—	16	—	16	—	14	—
Hydrocele .. ..	1	17	—	18	1	36	—
Ulcer of Penis .. ..	—	4	—	4	—	10	—
137. Cysts or other non-malignant Tu- mours of the Ovaries .. ..	1	22	—	23	—	—	22
138. Salpingitis :—							
Abscess of the Pelvis .. ..	—	30	—	30	1	—	64
139. Uterine Tumours (non-malignant)	1	22	1	23	—	—	30
140. Uterine Hæmorrhage (non-puer- peral) .. ..	2	32	2	34	—	—	290
141. A.—Metritis .. ..	5	54	—	59	1	—	337
B.—Other affections of the Female Genital Organs :—							
Displacements of Uterus ..	1	12	—	13	1	—	29
Amenorrhœa .. ..	—	1	—	1	—	—	47
Dysmenorrhœa .. ..	—	3	—	3	—	—	187
Leucorrhœa .. ..	—	—	—	—	—	—	14
142. Diseases of the Breast (non-puer- peral :—							
Mastitis .. ..	—	5	—	5	—	—	71
Abscess of Breast .. ..	—	15	—	15	2	—	22
VIII. PUERPERAL STATE.							
143. A.—Normal Labour .. ..	6	325	2	331	11	—	156
B.—Accidents of Pregnancy :—							
(a) Abortion .. ..	—	68	1	68	—	—	61
(b) Ectopic Gestation .. ..	—	1	—	1	—	—	1
(c) Other accidents of Pregnancy	4	30	1	34	1	—	78
144. Puerperal Hæmorrhage .. ..	—	7	—	7	1	—	13
145. Other accidents of Parturition ..	—	3	—	3	—	—	10
146. Puerperal Septicæmia .. ..	—	17	9	17	—	—	23
147. Phlegmasia Dolens .. ..	—	1	—	1	—	—	1
148. Puerperal Eclampsia .. ..	—	—	—	—	—	—	3
149. Ssquelæ of Labour .. ..	—	—	—	—	—	—	7
150. Puerperal affections of the Breast	—	—	—	—	—	—	2
Carried forward .. ..	126	3,619	199	3,745	136	39,975	38,256



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. .. .	126	3,619	199	3,745	136	39,975	38,256
<b>IX. AFFECTIONS OF THE SKIN AND CELLULAR TISSUES.</b>							
151. Gangrene .. .. .	2	15	4	17	2	20	16
152. Boil :—							
Carbuncle .. .. .	1	42	—	43	3	848	576
153. Abscess :— ..							
Whitlow .. .. .	1	14	—	15	—	119	61
Cellulitis .. .. .	10	136	3	146	4	922	506
154. A.—Tinea .. .. .	—	52	—	52	2	55	27
B.—Scabies .. .. .	—	9	—	9	—	273	197
155. Other Diseases of the Skin :—							
Erythema .. .. .	—	7	—	7	—	197	146
Urticaria .. .. .	—	1	—	1	—	100	97
Eczema .. .. .	1	25	—	26	1	829	697
Herpes .. .. .	—	—	—	—	—	37	23
Psoriasis .. .. .	—	2	—	2	1	60	52
Elephantiasis .. .. .	—	1	—	1	—	—	—
Myiasis .. .. .	—	—	—	—	—	—	—
Chigoes .. .. .	—	—	—	—	—	—	—
Cutaneous Leishmaniasis ..	—	—	—	—	—	—	—
<b>X. DISEASES OF BONES AND ORGANS OF LOCOMOTION (OTHER THAN TUBERCULOUS).</b>							
156. Diseases of Bones :—							
Osteitis .. .. .	1	21	1	22	—	28	27
157. Diseases of Joints :—							
Arthritis .. .. .	1	33	—	34	—	163	158
Synovitis .. .. .	1	1	—	2	1	13	4
158. Other Diseases of Bones of Organs of Locomotion .. .. .	—	16	—	16	1	49	30
<b>XI. MALFORMATIONS.</b>							
159. Malformations :— .. .. .	1	7	—	8	—	—	—
Hydrocephalus .. .. .	—	—	—	—	—	2	1
Hypospadias .. .. .	—	—	—	—	—	1	—
Spina Bifida, etc. .. .. .	—	—	—	—	—	3	7
Carried forward .. .. .	145	4,001	207	4,146	151	43,694	40,881

## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining Hospital in at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	145	4,001	207	4,146	151	43,694	40,881
XII. DISEASES OF INFANCY.							
160. Congenital Debility .. ..	—	1	—	1	—	10	8
161. Premature Birth .. ..	1	1	1	2	—	1	2
162. Other affections of Infancy ..	1	—	—	1	—	—	3
163. Infant neglect (infants of three months or over) .. ..	—	—	—	—	—	—	—
XIII. AFFECTIONS OF OLD AGE.							
164. Senility :—							
Senile Dementia .. ..	—	4	—	4	—	4	1
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.							
165. Suicide by Poisoning .. ..	—	—	—	—	—	1	—
166. Corrosive Poisoning (intentional) ..	—	—	—	—	—	—	—
167. Suicide by Gas Poisoning .. ..	—	—	—	—	—	—	—
168. Suicide by Hanging or Strangula- tion .. ..	—	—	—	—	—	1	3
169. Suicide by Drowning .. ..	—	—	—	—	—	3	4
170. Suicide by Firearms .. ..	—	—	—	—	—	—	—
171. Suicide by cutting or stabbing Instruments .. ..	—	—	—	—	—	—	—
172. Suicide by jumping from a height	—	—	—	—	—	—	—
173. Suicide by crushing .. ..	—	—	—	—	—	—	—
174. Other Suicides .. ..	—	—	—	—	—	—	—
175. Food Poisoning :—							
Botulism .. ..	—	—	—	—	—	4	2
176. Attacks of poisonous animals :—							
Snake Bite .. ..	—	4	—	4	—	—	3
Insect Bite .. ..	1	—	—	1	—	17	5
177. Other accidental Poisonings ..	—	1	—	1	—	6	3
178. Burns (by Fire) .. ..	—	11	3	11	—	84	68
179. Burns (other than by Fire) ..	—	5	2	5	—	58	57
180. Suffocation (accidental) .. ..	—	—	—	—	—	2	—
181. Poisoning by Gas (accidental) ..	—	—	—	—	—	—	—
182. Drowning (accidental) .. ..	—	—	—	—	—	—	3
183. Wounds (by Firearms, war excepted)	1	12	2	13	—	18	1
184. Wounds (by cutting or stabbing Instruments) .. ..	3	148	3	151	—	905	294
185. Wounds (by Fall) .. ..	—	39	—	39	1	740	268
Carried forward .. ..	152	4,227	218	4,379	152	45,548	41,606



## RETURN OF DISEASES AND DEATHS FOR THE YEAR 1931.

Diseases	IN-PATIENTS					OUT-PATIENTS	
	Remaining in Hospital at end of 1930	Yearly Total		Total Cases treated	Remaining in Hospital at end of 1931	Male	Female
		Admis- sions	Deaths				
Brought forward .. ..	152	4,227	218	4,379	152	45,548	41,606
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES— <i>contd.</i>							
186. Wounds (in Mines or Quarries) ..	—	—	—	—	—	21	9
187. Wounds (by Machinery) .. ..	—	10	—	10	—	9	1
188. Wounds (crushing, <i>e.g.</i> railway acci- dents, etc. .. ..	—	—	—	—	—	21	11
189. Injuries inflicted by Animals, Bites, Kicks, etc. .. ..	—	10	2	10	—	113	45
190. Wounds inflicted on Active Service	—	—	—	—	—	6	—
191. Executions of civilians by belli- gerents .. ..	—	—	—	—	—	—	—
192. A.—Over fatigue .. ..	—	—	—	—	—	—	—
B.—Hunger or Thirst .. ..	—	—	—	—	—	—	—
193. Exposure to Cold, Frost bite, etc.	—	—	—	—	—	150	58
194. Exposure to Heat :—							
Heatstroke .. ..	—	—	—	—	—	—	—
Sunstroke .. ..	—	2	—	2	—	—	—
195. Lightning Stroke .. ..	—	2	—	2	—	—	1
196. Electric Shock .. ..	—	—	—	—	—	—	—
197. Murder by Firearms .. ..	—	1	1	1	—	—	—
198. Murder by cutting or stabbing Instruments .. ..	—	—	—	—	—	4	1
199. Murder by other means .. ..	—	—	—	—	—	—	1
200. Infanticide (Murder of an infant under one year) .. ..	—	—	—	—	—	—	—
201. A.—Dislocation .. ..	—	11	—	11	—	41	24
B.—Sprain .. ..	—	9	—	9	1	53	17
C.—Fracture .. ..	10	92	7	102	2	72	30
202. Other external Injuries .. ..	—	180	1	180	3	972	429
203. Deaths by Violence of unknown cause .. ..	—	—	—	—	—	6	1
XV. ILL-DEFINED DISEASES.							
204. Sudden Death (cause unknown) ..	—	—	—	—	—	7	5
205. A.—Diseases not already specified or ill-defined :—							
Ascites .. ..	1	27	2	28	1	37	38
Oedema .. ..	—	—	—	—	—	12	10
Asthenia .. ..	—	37	1	37	3	1,266	1,105
Shock .. ..	—	1	—	1	—	—	—
Hyperpyrexia .. ..	—	—	—	—	—	168	120
B.—Malingering .. ..	—	—	—	—	—	—	—
XVI. DISEASES, THE TOTAL OF WHICH HAVE NOT CAUSED TEN DEATHS ..	—	—	—	—	—	—	18
TOTAL .. ..	163	4,609	232	4,772	162	48,506	43,530







